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REMINISCENCES OF AN ARMY-SURGEON.

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BY

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DEEPLY as anyone placed in my position by the kindness of his professional brethren may feel the honour and distinction conferred upon him, he is in some respects an object of sympathy, if not of pity.

The search for a subject on which to base an address; the certainty that there lies at his disposal not an inch of untrodden ground; the hopeless conviction that there is nothing new under the sun; the dread of exhausting the patience of his audience, or sending them into a merciful condition of peaceful unconsciousness—all crowd into the mind of him who sits down to compose a presidential address.

But, as Sydney Smith observes, "To do anything in this world worth doing, we must not stand back shivering and thinking of the cold and danger, but jump in and scramble through as well as we can." Despairing of being able to find a subject of medical science on which I might venture with any degree of confidence to address you, and having an antipathy to matters of medical ethics or polemics, I shall not attempt to speak on any of these questions.

But reflecting on the fact that my professional life has lasted for over forty years—the greater part of it having been passed as an army medical officer—I thought I might possibly interest you a little by reviewing some reminiscences of bygone days, even if I should lay myself open to the charge of fighting old battles over again.

Forty-four years ago England had been thirty years at peace. The Battle of Waterloo closed the great campaign of Wellington in 1815. Some smaller wars subsequently occurred in the defence of our Colonial Empire, and on the north-west frontier of India; but no great war called out the latent energies of Britain until the Crimean War of 1854. In 1842, it is true, the massacre of the whole of General Elphinstone's army in the Khyber Pass shocked England. Only one man escaped —Dr. Brydon, the surgeon of the 44th Regiment, who, after great suffering, reached the fortress of Jellalabad, the only survivor of a force of 12,000 persons, including camp-followers, who had marched from Cabul. This episode in the life of an army-surgeon has been made the subject of Miss Thompson's celebrated picture, "The Remnant of an Army."

At the time I entered Her Majesty's service, in 1848, our profession was over-stocked. For men who had no

private means, it was difficult to find suitable employment either civil or military. Professional status was at rather a low ebb. The Director-General of the Army Medical Department at this time, an officer who had done good service, but who had held the appointment for thirty years, used to declare that he could if he chose obtain medical officers for half-a-crown a day. Possibly this was an exaggeration; but students were considered fortunate if they could obtain the promise of a commission, a boon then only to be had by nomination and interest.

In my own case, I had to wait for nearly two years before my turn came, so many were the applications to serve Her Majesty for the yearly sum of £126, and free quarters.

There was no Army Medical School then in existence. The only special instruction given, so far as I am aware, was a course of lectures on Military Surgery, given by Sir George Ballingall, in the Edinburgh School of Medicine, and later on a similar course by Mr. Tuffnell of Dublin. There was, however, a fair supply of good literature on the subject, notably the elaborate works of Robert Jackson, probably the greatest thinker for the soldier's good who ever lived, excepting only the late Professor Parkes.

The treatment of disease by the abstraction of blood, either local or general, was then in full force, and every army-surgeon was expected to be an adept with the lancet and the cupping-glass. Special instruction was given to us in the latter operation by a professional cupper in London, named Mapleson, who, I fancy, made a tolerably good income out of the army medical recruit, as we had to pay him a liberal fee. The instruction was

peculiar. There was no patient on whom to practice the operation. The subject on which we practised was an old leather-covered sofa, and I well remember the feeling of satisfaction which passed through my youthful bosom, when I was enabled, by an act of prestidigitation more easily imagined than described, to spread over this venerable piece of furniture a prodigious number of cupping-glasses in a remarkably short space of time.

Every medical officer, on entering the service, had to pass a period of probation at the General Hospital, Fort Pitt, Chatham. Here we had to live, at our own cost, at an expensive Mess. But the time was not without its uses. It gave men the opportunity of judging how they would like the army-life, and there were excellent opportunities for professional study and improvement. Besides the practice of the Hospital, there was an admirable library, an excellent pathological museum, and ample opportunities, under a competent instructor, of practising surgical operations on the dead subject.

All those in my year elected to remain in the service, and in a few months were scattered over the world—all with one exception, a brilliant young man who had obtained the highest distinction as a student. We formed a friendly liking together. I urged him strongly not to enter the army, pointing out to him that with his attainments he was sure to do well in private practice. My prophecy was realised. He took my advice and resigned. I have never met him since; but he is now, I believe, one of the most successful and distinguished physicians of the Midland Counties, and a Fellow of the Royal Society.

The medical service was then principally recruited from the Scotch and Irish schools, some of them very rough specimens, who were entirely innocent at first of

the ordinary uses of a silver fork or finger-basin at dinner, and whose period of probation at a military Mess-table was not the least useful part of their education; but under this rather uncultivated exterior there were not a few instances of those who, in their subsequent career, gave testimony that they possessed a high sense of duty, and a lofty estimate of the purposes of life.

It was generally understood that Scotchmen obtained the best appointments, especially Aberdeen men, as the Director-General hailed from the granite city. I had a Scotch name and parentage, but did not hold a Scotch degree, and in consequence found myself gazetted to the worst appointment in the service, the Assistant-Surgeoncy of the 3rd West India Regiment. We received the first intimation of the corps to which we were destined, not from the War Office officials, but from persons much more important in our eyes; namely, our respective tailors and outfitters. These gentlemen had the War Office messengers in their pay, and they obtained in this way the first look at the *Gazette* on its way to the printing office. Armed with this information, the tailors came to Fort Pitt, and as their reward for imparting to the anxious candidate the news of his destination, claimed the privilege of supplying him with his uniform and outfit.

My appointment to a black regiment was a heavy blow to me; but as I had determined to take the rough with the smooth in life—and, indeed, having no other alternative—I accepted it, and, like many other events in life's journey which look dark at first, it had its bright side.

My period of service in the West India Islands was profitable in one sense, and instructive in another. I obtained a good private practice, and I became familiar

with the clinical features of those formidable fevers, only to be seen in the tropics. It also brought me into contact with an epidemic of Asiatic cholera, perhaps one of the most destructive that ever visited any part of the world. A West Indian town without drainage of any sort, supplied with contaminated well-water, is just the field where cholera would rage unchecked. The mortality was appalling. Nearly 90 per cent. of those attacked died. The cases occurred principally among the native population, who were stricken and demoralised by panic.

I learned one or two things in this epidemic. First, that cholera in its epidemic movement, follows the great lines of traffic and human intercourse; that it *does* seek out man wherever he congregates; and that he carries it with him from congregation to congregation.* I have met with it in various parts of the world since, and on every occasion that law of its progress has been indelibly impressed on my mind. I learned also never to despair of the worst case, and to treat actively the preliminary diarrhœa where it exists; but I know of no specific remedy for this disease, and I doubt if our treatment of it has advanced much in the last fifty years.

But it is a different thing when we look at the prevention of cholera by the vast sanitary powers we posssess in this country now. We know how our late distinguished health-officer stamped out the disease from Bristol in 1866, and delivered the city from impending danger more than once; and I do not believe cholera will ever make head in this country again, while our health-officers are on the alert, and attack it without hesitation on its first appearance.

At the beginning of my life in the army, there were

* Maclean *on Tropical Diseases.*

two rather peculiar characters, who were members of the Medical Department. One resided at Chatham—a short stout man, with a sharp peremptory manner, and very fierce look. This was by general report believed to be the original from whom Dickens drew his well-known character of Dr. Slammer, who, as the readers of *Pickwick* will remember, challenged the unfortunate Mr. Winkle in mistake for Jingle, after the Rochester ball. I knew this gentleman well: he was a kind, hospitable, warm-hearted man; but he was very tetchy on the subject of his having heen immortalised by the great novelist. Every one knew of it; but no one dared to call him Slammer, as the penalty might have been serious.

The other had a very remarkable and romantic history. In appearance he was a pale little man, with a very shrill voice. He was a perfect fire-eater. He had fought several duels. He was a person of considerable ability. He passed through a long service of over thirty years, reached the highest rank, and served with honour and distinction in various stations abroad, and he was regarded with great respect by those who were brought into official or professional relations with him. There were queer suspicions and whispered stories about him. His contemporaries did not know quite what to believe. He reached a good old age, unmarried; died; and left particular directions that his body was not to be examined. But, somehow, the murder came out. His body *was* examined, and this distinguished medical officer was discovered to be—a woman!

In 1854 the great Crimean War burst upon us. It found us living in a fools' Paradise. Everything looked perfect on paper, and on parade. The discipline and *physique*, all that dazzles the eye was faultless as regards

our troops. The army of Lord Raglan was reviewed by the Sultan on the plains of Scutari, in May of that year. A more splendid host for its size was never seen. But in seven months later, owing to the utter inefficiency and breakdown of the departments of transport and supply, all that was left of that army consisted of a few ragged, miserable, but still heroic soldiers living in wretched tents or in holes in the ground on the bleak hillside before Sebastopol, and a vast majority of emaciated, sickly, diseased men, crowding the wards of Scutari Hospital, with all its filthy horrors so often alluded to in the history of that time.

You will remember that previous to the invasion of the Crimea, the British and French armies occupied Bulgaria—to us an unknown country, unknown, I mean, in reference to its salubrity: we knew nothing of its endemic diseases, nor did our authorities know the most healthy or unhealthy localities. We were not long there before we discovered these things for ourselves. Intermittent and remittent fevers, and dysentery, soon disclosed to us that we were living in the very atmosphere of malaria. Many of our men and officers succumbed or were invalided home. To crown all, cholera came to us from the West, and began slowly, but surely, to spread through our ranks. The onset of these diseases, coupled with that period of inaction and suspense so trying to soldiers in the field, combined to affect seriously the health and *morale* of the army, so that it was with a feeling of relief amounting to enthusiasm that the order to invade the Crimea was received; but there is no doubt, as Sir William Aitken has so clearly pointed out, that this period of four months' encampment in the malarious regions of Bulgaria laid the foundation for the disasters from sick-

ness and death which nearly destroyed the British army in the first winter before Sebastopol.

The victory of the Alma, which caused such enthusiasm in England, and such dismay to Czar Nicholas, taught us our first bitter medical lesson. There was no want of medical officers; but surgical appliances, means of transport, everything needed for the treatment of sick and wounded men, were miserably, hopelessly deficient. I had in my regiment, on the morning after the action, some 70 wounded men and officers, besides several cases of cholera. The ships for transporting the sick and wounded were five miles away by land-journey, lying off the mouth of the Alma river, and for the conveyance of these helpless men I had two hand-stretchers. It is a matter of history that we were indebted to the French army for the conveyance of our wounded to the sea-beach. They had ambulance-carriages and mule-litters, and they helped us nobly; but it took two days to collect our wounded and transport them, a duty which ought to have occupied only a few hours. At last the dismal duty was accomplished, and 2500 sick and wounded men were embarked and sent off to Scutari.

All the wounds in the battle were gun-shot wounds; there were no bayonet or sword wounds, as the opposing forces never came into close contact. All operations were performed with the patients lying on the ground, and mostly without chloroform. A most unhappily worded order from the chief medical officer prevented many from using it. Indeed, I fear the supply was very limited.

There were not wanting instances at this time of real heroism among the members of our profession. It was here, after the retreat of the Russian army, leaving the greater part of its wounded upon the field, that Assistant-

Surgeon Dr. Thompson volunteered to take charge of the whole of the Russian wounded prisoners. Attended only by his soldier-servant, surrounded by scores of enemies, in a hostile country, these two brave men remained at their post, tending with assiduous care their suffering foes, remembering only the great duties of our common humanity. Dr. Thompson only survived a few weeks longer; he fell a victim to cholera, which still steadily but surely dogged our march to Sebastopol. But his act of devotion is remembered to this day in his northern home, where a monument to his memory stands in his native town.

It was here also that Mackenzie, a brilliant young Scotch surgeon, who had joined the medical service as a volunteer, worked unceasingly night and day to help the wounded. He, too, died of cholera a few days later. He had won the affection and respect of all officers and men who had come under his skilful hands, and he died, lamented by the army, a martyr to duty.

The miseries and discomforts of the first winter before Sebastopol are familiar to all who have read Kinglake's unrivalled description, or Russell's masterly correspondence. A series of disasters fell upon the army in rapid succession. The battle of Inkermann, brilliant victory as it was, terribly disabled it. Even at this early period, disease was making daily ravages. Some regiments were reduced to a handful of men; brigades and divisions were the mere shadows of what they had been a few months before. The prospects were gloomy in the extreme. The Light Cavalry division was nearly annihilated by that brilliant charge which poets have lauded, and where every man was a hero, but which in its results was a miserable fiasco, a mere holocaust, brought about no one knew how,

by the folly and pride of men who appear to have lost their heads and their tempers at the same time.

The hurricane of November the 14th coming very soon after, left the camp a scene of desolation and misery indescribable; it destroyed several of our ships, notably the *Prince*, containing a great part of the winter-clothing for the army. Confusion reigned supreme; order seemed to be nowhere, except where actual fighting was concerned. For while the departments of supply and transport were hopelessly broken down, still the long line of intrenchments before the besieged city was manned day and night by half-starved and wretchedly-clad men, facing the incessant fire from the Russian batteries, and the icy blasts, still worse to endure, from their terrible climate.

The duties which fall to the lot of army-surgeons after a general action are of a very trying description; while the conquering force moves on, the surgeon is left on the field to exercise his office amidst the most appalling scenes of human suffering. His first feeling is one almost of bewilderment, for he hardly knows with whom to begin, when so many need his help and are crying for it.

The operation of attending to, collecting and removing into a place of safety, a large mass of wounded thus becomes a matter of serious concern.* Much is involved in it: the immediate saving of life endangered by hæmorrhage, the performance of such operations as are absolutely necessary at the moment, and the removal of the wounded in such a manner as may expose them least to those dangers and accidents which may afterwards render life a long misery.

There was no Ambulance Corps in this campaign at

* See *Gunshot Injuries*, by Professor Sir Thomas Longmore, C.B.

first. The duty of carrying the wounded out of action to the rear, where the medical officers were at work, devolved upon the bandsmen of each regiment. Most regimental surgeons have taught these men the use of the tourniquet, and the way of affording rough first aid to the wounded. All these arrangements are now altered, and these duties are done by well-instructed men of the Medical Staff Corps.

I do not intend in this address to speak of gunshot or other injuries received in battle, for I have forgotten much of what I ever knew on the subject; but there are one or two matters of interest, or rather curiosity, to which I may refer.

The term "Windage of Shot" was formerly, even by enlightened observers, applied to those cases in which serious internal mischief has been inflicted without any external marks of violence. They are almost invariably produced by large fragments of shell or round shot.

The injuries* are inflicted instantaneously, and surgeons for many years believed that the rapid flight of the projectile in close proximity to the body caused a sudden impingement of a column of air upon some part of the surface, inflicting rupture and destruction of internal structures without wounding the integument. These views I need not say are entirely exploded, so many instances having occurred of round shot having passed so close to various parts of the body, tearing off the soldier's accoutrements, and portions of his uniform, without inflicting any injury whatever.

The explanation of these cases of so-called windage lies in the direction or obliquity with which the projectile happens to strike against the skin. A round shot in its

* Longmore, *Op. cit.*

flight may, so to speak, roll across the abdomen or the thigh, breaking up and destroying the soft parts or bone, without injuring the integument. Then the elasticity of the integument under certain circumstances is very remarkable. The following case I remember very well to have happened at the Alma. A man of the 42nd Highlanders was struck by a round shot in the abdomen, and instantly killed. After the action was over, a party of soldiers lifted his body for the purpose of burying him, and found that it was unaccountably heavy. The assistant-surgeon of the regiment, Mr. Mackinnon, examined the abdomen: he found a wound, not very large, and on freely opening it up, he discovered a 24-lb. solid shot lying in the cavity among the intestines. The wound in the abdominal wall was much smaller than the diameter of the shot, which is five inches. The spine was ground to pieces, and when the man was lifted, the mass of iron bulged out from his back; but there was no wound there, and the abdominal wall in front prevented the shot from falling out. No doubt it was a spent shot.

The diseases from which the besieging army suffered so terribly were: cholera, dysentery, fever both typhus and typhoid, and different forms of scurvy. These diseases, with the exception of cholera, were the necessary outcome of the conditions under which the army lived. Exposed as they were to intense cold in summer-clothing, fed on salt rations for the most part and biscuit, without fresh vegetables, lime-juice, or any anti-scorbutic, the troops were reduced—until help came—to a condition which forced the *Times*' correspondent to say of them that "the wretched beggar who wanders about the streets of London in the rain led the life of a prince compared with British soldiers who were fighting for their country

before Sebastopol. All suffered equally, officers and men. Some of the sons of the best blood in England lived lives in the first winter which the meanest pariah would not have envied; and yet they never for a moment gave way to despair, or allowed a thought of eventual failure in the great tragedy before them to enter their minds." *

The means of treating the sick at this time were deplorably insufficient. The supply of medicines failed for a time almost entirely, and the only food available was totally unsuited to men suffering from acute disease. All that medical officers could do was to send their patients with as little delay as possible on board the transports for deportation to Scutari. This condition of things lasted for several months, until England was aroused to the condition of her army, and then there came trom the hands of the rich, and the cottages of the humble, such a wealth of generous kindness, that not only all the necessaries of life, but many of its luxuries, were poured out with lavish hand.

But the diseases I have enumerated spared none. Ship after ship carried their sad freight to the Bosphorus and Scutari, and the cemeteries around that lovely Asiatic shore, in sight of the Golden Horn and the mosques and minarets of Constantinople, attest, to the present hour, how British soldiers, from the highest to the lowest rank, laid down their lives for Queen and country.

The extraordinary immunity of the wounded in this war from its two formidable complications—viz., tetanus, and hospital gangrene—has been the subject of frequent remark.† Only three cases of tetanus occurred among the English troops before Sebastopol, and there were very few of gangrene. I had, however, a personal experience

* Russell's Letters. † See Longmore, *Op. cit.*

of hospital-gangrene, a few months later, on the occasion of a voyage from Constantinople to England in medical charge of a sailing transport in which there were 212 wounded men, who had partly, but not wholly, recovered. The voyage occupied 64 days, and we met with most tempestuous weather both in the Mediterranean and Atlantic. The ship was fairly supplied with comforts, but the main deck of a transport in a winter-storm, filled with sick and wounded men, with the hatches battened down, is a fruitful field for the development of germs. We did not know much about germs in those days, and antiseptics were quite unknown. In addition to the wounded, I had cases of cholera and dysentery on board, and before very long hospital-gangrene made its appearance. I do not know any description of this now almost unknown disease which equals that of Hennen.

"A wound," he says, "attacked by hospital gangrene in its most active and concentrated form, presents a horrible aspect within forty-eight hours. The whole surface of the wound has become of a dark-red colour and ragged appearance, with blood partly coagulated and putrid, adhering at every point. The edges are everted, the cuticle separated three-quarters of an inch round, with a concentric circle of inflammation extending beyond it. The limb is swollen for some distance, of a shining, white colour, the whole of it being œdematous and pasty. The pain is burning and unbearable in the part itself, while the extension of the disease in a circular direction may be marked from hour to hour, so that within twenty-four or forty-eight hours the whole of the calf of a leg, or the muscles of the buttock, may disappear, leaving a great hiatus of the most destructive character, exhaling a peculiar stench which can never be mistaken, and spread-

ing with a rapidity quite awful to contemplate. The great nerves and arteries yield last, but they finally give way, closing the scene after repeated hæmorrhages by one which proves the last solace of the unfortunate sufferer."

This description I saw literally fulfilled in the voyage I am speaking of: wounds almost healed, when attacked, presented in a few hours the appearances just described. The whole buttock was destroyed in one case in forty-eight hours, and was only stopped by fuming nitric acid. In another the gangrene attacked a wound near the elbow, rapidly destroying the structures on the inner side of the arm, and opening the brachial artery, which had to be ligatured. Six or seven cases died, but as the weather improved, I was able to get more ventilation into the main deck, and the disease ceased.

During the siege a surgical operation was performed successfully, which I believe was done for the first time by any army-surgeon. This was excision of the head and neck and part of the shaft of the femur for a gunshot fracture. I saw this patient after his return to England. The limb was not a very useful one, but the operation had saved the man's life. By order from the War Office, I took the patient to London to show him to Guthrie, then sinking into the grave, who told me he had advocated the operation many years before. The operation in this case was performed by my friend Dr. O'Leary, who retired from the service, as a Surgeon-General, a few years ago. He was a member of this Branch, and died in Bath in 1886.

There is a remarkable and exceptional pathological fact * which is exhibited more strikingly on the battle-field than anywhere else; and that is, the perpetuation of attitude

* Longmore, *Op. cit.*

and facial expression met with in some soldiers who have been killed by gunshot wounds. Sir Thomas Longmore says: "The attitude of life, the very act which was in progress of performance, the expression of countenance indicating the feelings under which the action was performed, all arrested by the fatal shot, are perpetuated in death. The breathing passionate actors have been instantaneously, as in the fable of Medusa, converted into lifeless fixed statues." I have seen men on the field lying with their rifles in their hands either aiming or preparing to aim at an object, but stone dead. My friend Surgeon-General Mackinnon was one of the first to enter the Redan after it had been evacuated by the Russians, and one of the first things he saw was a Russian officer sitting on a gabion. His arms were folded across his chest, and he appeared to be sleeping; but he was dead, from a rifle-ball through his left breast. There was nothing to show whether he had sat down on the gabion after being shot, or whether he happened to be sitting there when he was killed. Dr. Rossbach of Würzburg has discussed this question in Virchow's *Archives*. He gives a remarkable instance of a soldier who was killed when in the act of raising a cup to his lips, when sitting among his comrades at breakfast. The fragment of shell tore off his skull, leaving nothing but the lower jaw, and he was found twenty-four hours afterwards in a half-sitting position, still holding the cup with his unsupported raised hand up to his headless lower jaw. Rossbach accounts for these phenomena by rapid *rigor mortis*; but this seems hardly tenable: it is more easily accountable on the hypothesis of sudden and permanent muscular spasm and rigidity.*

* See Longmore, *Op. cit.*

Never was there a time when the soldier was made so much of as during this great siege. His sufferings and privations, his dogged courage, and cheerfulness under the most trying circumstances, were a constant theme of praise among his countrymen at home. In the beginning of the year 1855, the condition of the army evoked so much interest that a Royal Commission, with Mr. Sydney Herbert at its head, was formed to investigate everything connected with the soldier's life. When the state of Scutari Hospital became known in England, the sympathy which it evoked took a practical form, and, in the forefront of the efforts which were made, one figure stood prominently forward, whose large-hearted exertions at the time gained her the gratitude of her country; and although the events in which she took a prominent part are among the things of an almost-forgotten past, although she herself is now an old woman, weakened by years and suffering, yet even now the name of Florence Nightingale calls out our admiration and respect, as we remember how she laboured for the soldiers' good in the days gone by.

Scutari Hospital, as I remember it, was an immense barrack. It had never been built for a hospital at all. There was a smaller building which was the hospital proper. But the great Turkish barrack was used for this purpose when the smaller one was found insufficient. Into this, unsuited in every way for such a purpose, poured ship-loads of sick and wounded from the front. Overcrowding was the result, and the resources of the Medical Department, weakened as it was, were unable to meet the strain, and for a time the condition of things was painful in the extreme.

But help was coming from home. Miss Nightingale came armed with great powers. She had the whole

country at her back, and cared nothing for responsibility. She disregarded regulations, and broke through the trammels of official restraint in a way no officer, medical or otherwise, would have dared to attempt. There came also from England a large volunteer staff of medical men, among them our friends Dr. Beddoe of Clifton and Dr. Brabazon of Bath, who did good and faithful service in Scutari, at the front, and at the various hospitals established on the Bosphorus and other places.

At last the war was over. Sebastopol was taken after a most heroic resistance. The army came home and received its honours, and, as a first consequence of all that had happened, public men began to enquire into the entire question of sickness and mortality among troops. That enquiry brought to light the fact that in India alone the death rate amounted to 69 per 1,000 per annum. Then followed the great wave of sanitary reform, which spread far and wide. In India the results have been most satisfactory. The death rate in a few years was reduced from 69 to 18 per 1,000 per annum; and at this moment Englishmen are as healthy in India as they are at home.

In 1856 the first stone of the Royal Victoria Hospital, Netley, was laid by H.M. the Queen. It was opened seven years later, in 1863. The Army Medical School, which had been established at Fort Pitt, Chatham, in 1860, was transferred to Netley, and the work of its four eminent Professors—Parkes, Longmore, Maclean, and Aitken—has been carried on there since by them and by their successors to the immense advantage, as I believe, of the British soldier in all parts of the world. Having been on the staff of that school myself, it would not become me to eulogise it; but I may say this, that after

reading the attacks which have been recently made upon it in the public press, I can discover no good reason why it should be abolished, nor on what grounds its detractors seek to deprive the young army-surgeon, at his entrance upon a great number of new and unknown duties, of the valuable instruction he receives there. It has often been the butt of erratic and unscrupulous politicians, who, for the sake of courting popularity and winning a few votes by an ostentatious display of false economy, have sought to destroy an institution established by wise and philanthropic men. But I believe it will still live, and continue to instruct the young army-doctor in the practical duties of the life which lies before him, and mainly in those great questions of hygiene and the prevention of disease with which the name of Edmund Parkes will be for ever associated.

Another outcome of the Crimean War was the reorganisation of the Medical Department. In 1858 a Royal Warrant was issued which gave medical officers a position they never had before—increased rank and pay, and the removal of hardships which had long pressed upon them. It has been well called the Magna Charta of the Department.

Thirty years have passed, and I may say scarcely a shred of that covenant remains. It has been so altered, so shorn of its fair proportions, that it has practically ceased to exist. The Army Medical Service has been during all these years the shuttlecock of politicians, economists, and reformers. Its history would form a volume of painful interest. Sometimes it has been reduced so low in prestige that no highly educated student thought of entering its ranks. At other times it has stood so high in reputation that men with the best qualifica-

tions have sought employment in it. Only a few years ago, after the conclusion of the Nile campaign under Lord Wolseley, Dr. Richard Quain delivered an address to the probationers who had completed their course of study at Netley. He described the service, as it then existed, as being in a condition almost of perfection, and these sentiments were re-echoed in the public press; and now once more the barometer has fallen, and the ship is sailing through stormy waters, with rocks on all sides. The unfortunate Medical Department is again undergoing the process of official tinkering under the hands of the inevitable Parliamentary Committee. What the result will be no man can tell.* But, judging from my 40 years' experience of the process, I do not expect much; and if the expressed views of some politicians are carried out, ruin, and not reform, will be the result.

Happily, the great Association to which we belong, and of which we are a branch, extends its protecting ægis far and wide, and shields and succours all its members wherever and in whatsoever circumstances they are found. It has not forgotten the public services. Whatever advantages army-surgeons have been able to obtain have been won for them mainly by the equitable representations of their brethren in civil life. By the rules of the military service to which they belong their lips are sealed. They cannot by any united action place their difficulties before the powers that rule them. But the British Medical Association, by its powerful *Journal*, by its Parliamentary Committee, by its representations in season and out of season, has made its voice heard on many occasions, and

* Since the above was written, Lord Camperdown's Committee has issued its Report and Recommendations. The latter are liberal and good; but as there are six dissentient members out of the eight, it is doubtful if they will be carried into effect.

has demonstrated clearly that the fair and just hopes of a body of nearly 1,000 medical men are not to be lightly ignored or contemptuously set aside. I do not doubt it will succeed in the end. But why should all this agitation be needed? Other professions do not appear to have to fight a continual battle and keep up a constant struggle. Why is it so? Is it some part of that shadow which still rests on our whole profession, and which stands between it and the public recognition and appreciation to which its merits entitle it? Possibly it is so.

That shadow can only be dissipated, and will in the end certainly be dispersed, not only by setting before ourselves lofty aims and high aspirations, but by the brighter shining of the light of true scientific progress—by that living movement which makes the goal of yesterday the starting point of to-morrow.

The march of evolution from distant ages of professional obscurity is a slow one. The process by which medicine, in all its branches, has emerged from the darkness and prejudice of centuries is yet incomplete. Its legitimate position is not yet won. Men, it is true, eulogise our unselfish deeds and labours for the general good of mankind, but look coldly on our attempts to mount the social ladder, to win a place and name in the nation's estimate, or to claim a fair share in the distribution of those public honours and rewards which are freely bestowed on other professions and callings in life. Happily, there *is* a popularity which is worth aspiring after, and which is ours alone. It is won in the bosom of families, at the bedside of the sick and suffering—won by the hospital-surgeon and physician from the lips of Christ's poor, and by the hard-worked country practitioner riding through the snow to save the life of some mother in the throes of childbirth.

It will be ours as long as we cultivate that generosity of nature which always prompts to extend the strong arm of help to those in trouble, which eternally beckons to the unfortunate to come and take shelter under it, and ever urges on to the performance of deeds of kindness which are hardly known except to the recipients of them.

Gentlemen, I must bring my remarks to a close.

In this rambling and rather disconnected address, where I am shocked to find the personal pronoun occurring far too frequently, I have discussed questions about which I cannot expect you to take so deep an interest as I do; although I do not doubt your readiness to sympathise with the difficulties which beset a large body of your brethren in the public service.

For my own part, I cannot regard the decadence of the old service to which I once belonged, and to which I owe so much of the success and happiness of life, without some sad reflections. Looking down the long vista of forty years, I recall the memory of old friends, good comrades, skilful surgeons, most of whom have passed away to the great majority. But it is some satisfaction, amidst the threatening wreck, to remember such names as Mouat, Home, Sylvester, Jee, Manly, Reynolds, and others, who have won the Victoria Cross, not by any acts of daring extraneous to their professional calling, but in the holy cause of saving human life—to remember that many were faithful even unto death. How, for example, at that disastrous day at Majuba Hill, a young medical officer, Dr. Landon, was mortally wounded, and laid down to die; and as he lay there, a wounded soldier was brought in suffering great agony. At this supreme moment, this young officer, sore-smitten as he was, ordered the bystanders to prop him up against a rock, and, taking out his hypoder-

mic case, injected with trembling hand some morphia into the arm of his fellow-sufferer. The soldier, eased of his pain, fell into a quiet slumber. The surgeon, shot through the spine, paralysed and dying, slept the sleep that knows no waking. "Inasmuch as ye did it to one of the least of these My brethren, ye did it unto Me."

What the future of the Medical Department of the Army may be I cannot conjecture. But, looking at its past history—at the work it has done in the wars which have taken place since the Crimean campaign, in the Indian Mutiny, in China, Abyssinia, Africa, the Cape, and Egypt —I do not know how men could have done their duty better.

Sir William MacCormac, than whom there can be no better judge of the duties of army-surgeons, writes thus: "In my opinion, the medical officers in the recent Nile campaign displayed the most self-denying devotion to the sick and wounded. There was an exceedingly small mortality. The death rate was only 1·32 per cent. among the sick; among the wounded the mortality was only 3·02 per cent. And the surgical arrangements for the care of the wounded were so successfully carried out, that not a case of infected wounded disease occurred in the hospitals. I know this to be unprecedented in military surgery. At Sedan, under comparatively favourable conditions, so many of the subjects of operation and other cases died of pyæmia, that I felt completely disheartened." So writes one who has had a large experience of war.

But if the history of the past is forgotten, if the bitter lessons taught in the Crimea and Scutari are disregarded, if a mistaken economy, or any other cause, so starves the medical service that highly educated men will not care

to adopt it as a career in life, if efficiency and readiness for the exigencies of sudden war are sacrificed for the sake of saving a few thousands, which the nation would never grudge—then will the same disasters recur, and the British soldier will lose the efficient help of that hitherto well-ordered medical organisation which has been ready to share his dangers and to stand by him in the hour of his need.

Patent certantibus campi. Manat undique cruor. Salus una restat moribundis; ecce chirurgus!

ACCIDENTAL HÆMORRHAGE.

Read at the Meeting of the Bath and Bristol Branch of the British Medical Association at Bath, May 30th, 1889.

BY

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THE subject which I propose for our consideration this evening is a complication of labour that is generally called "Accidental Hæmorrhage." I have chosen it partly because it is a dangerous, although, happily a rare, complication; but chiefly because there are some points relating to it of which our knowledge is still somewhat uncertain and imperfect. I therefore hope that I may be able, from the results of my own experience, to add something, however small, to what we already know on the subject. Since I have been engaged in obstetric practice, I have met with eleven cases of Accidental Hæmorrhage. They are as follows:

1. In 1848, Mr. Crichton requested my father to see Mrs. P——, Regent Place, Clifton. My father being from home, I went instead, and found on my arrival that the patient had, during the eighth month of pregnancy, been suddenly attacked with hæmorrhage, occasionally severe and accompanied with labour-pains. She had lost a good deal of blood; her countenance was very pale and sunken and her pulse very weak and thready. The bleeding had been checked for a time by a large sponge, with which Mr. Crichton had plugged the vagina. On remov-

ing the sponge and examining, I found the os uteri dilated to the size of a half-crown; the membranes were unbroken, and I could pass my finger between them and the cervix uteri as far as I could reach, without feeling any placenta. In the anterior portion of the os, I could, however, feel a small foot with the toes pointed forwards; and as soon as the os was dilated to the size of a crown, could feel the heel and malleoli. I then ruptured the membranes, and, almost immediately with the escape of the waters, a large portion of apparently detached placenta came down into the posterior part of the os uteri. I was able, with some difficulty, to lay hold of the ankle and bring it down low enough to put a noose of tape round it, and then secure the other leg. As soon as the abdomen of the child appeared, I gave a second dose of ergot, the patient having taken 5i. before I arrived. The child was then delivered. It was a small female child of seven months, which had apparantly been dead for some hours. The placenta was completely detached, and came away immediately after the child. The patient remained for some days in a state of great debility, but ultimately did well.

2. On March 18th, 1851, Mr. Ralph Bernard requested me to see Mrs. G——, living in York Buildings, a multipara whom he was attending. I was told that, two days previously, she was suddenly frightened by an accident which happened to one of her children, and ran quickly from one room into another; soon after this she was attacked with vomiting, followed by diarrhœa. On the next day hæmorrhage from the vagina came on, and continued at intervals, more or less profusely, until the evening, when Mr. Bernard saw her. He plugged the vagina and sent for me. On removing the tampon, I felt

the os uteri soft and dilated to the size of a crown, the membranes being tense and protruding; a small moveable body could be felt in front, high up and behind the pubes, and behind and to the left of that, apparently the hand. When the os uteri was fully dilated and the membranes had descended to the perineum, we decided to interfere. I accordingly introduced my left hand into the vagina, for the purpose of rupturing the membranes, making out the presentation, and turning if necessary. Chloroform was given, with good effect, by Mr. Bernard, who had also previously given her gr. $\frac{1}{4}$ of acetate of morphia and gr. ij of acetate of lead, to check the bleeding. On rupturing the membranes, the head, which was small, soon descended into the pelvic cavity, the hand was pushed above it, and labour soon terminated. The child was a seven months' child and was stillborn, having been apparently dead for two or three days. The mother did well.

3. In 1854, I attended Mrs. S——, a multipara, living at Cotham. The labour came on about two months before the time, being brought on, as she supposed, by the straining occasioned by a violent cough from which she was suffering, and which afterwards proved to be whooping cough. The commencement of labour was indicated by a slight amount of hæmorrhage, unaccompanied with pains; and this continued until the middle of the next day; the labour making little or no progress, and the os uteri being barely large enough to admit the tip of the finger. I gave her an opiate in hopes of arresting the labour. It did not, however, succeed; for in about three hours more hæmorrhage ensued, several clots were expelled, and the pains became sharp and frequent. In about an hour and a half more, a stillborn seven-months'

fœtus was expelled. The placenta followed almost immediately. On the next day, after several severe after-pains, a firm clot, as large as two fists, was expelled. The patient was at first rather weak from loss of blood, but ultimately did well.

4. On November 3rd, 1861 (about a month before her expected time), I was sent for to see Mrs. L——, a primipara, living on Cotham Hill, who was attacked with severe hæmorrhage after taking a walk. This was checked by strict rest and by giving an opiate, followed by small doses of turpentine. The hæmorrhage returned on November 22nd, and could not be checked by the same means. Labour commenced and continued, accompanied with bleeding between the pains. Opiates were first given; after that a dose of ergot, and a binder was applied, as the bleeding was still rather profuse, and the os uteri was dilated to the size of a crown, the membranes covering the head presenting, I ruptured them with my finger. This immediately checked the bleeding, and the labour soon terminated in the birth of a stillborn male child. There was much debility after the confinement, and it was necessary to give tonics, quinine, iron, &c.; but after a time the patient did well.

5. On June 19th, 1869, Mr. Burleigh asked me to see with him, Mrs. S——, St. Matthew's Road, Kingsdown. She was the mother of five children, and in her last confinement nearly died from *post partum* hæmorrhage. She was, moreover, a person of intemperate habits. Mr. Burleigh told me that she was attacked with violent bleeding early in the labour, when the os uteri was scarcely open. He had controlled this in some degree, by applying cold, by plugging, and by giving ergot; but yet a great oozing of blood was going on. I arrived at 11 p.m.; she

was then very weak from loss of blood. P. 140. I withdrew the plug, and on examining I found the os to be about the size of a florin, and the bag of the waters presenting. As there was then no hæmorrhage we waited about an hour; but as there was little or no pain and the case was getting urgent, I examined again, and found the os dilated to the size of a half-crown, but still rather rigid. I could feel a foot through the membranes. I then ruptured the membranes and brought down the presenting foot, and afterwards the other, and the rest of the child soon followed. It was a male, stillborn, and apparently about a month before the full time. The placenta was expelled immediately after the birth of the child, together with several large dark clots. In spite of all our attempts to rally the patient she gradually sank, and died about an hour after delivery.

6. On October 4th, 1873, Mr. Talbot asked me to see a poor woman living in Frog Lane, who was being attended by a midwife. She had had one child previously. I saw her at eight a.m. She was much blanched and the pulse was very feeble. The hæmorrhage had been profuse. On examining, I found the os uteri about the size of a shilling and rather rigid. I could feel the membranes and the head presenting; but no placenta. There was no hæmorrhage with the pains, which were regular, but not strong. The midwife had ruptured the membranes during an examination. I gave ʒi. of liquid extract of ergot, and ʒiij. of turpentine, and introduced a Barnes' bag (No. 1.) to dilate the os uteri. We then left for two hours. On our return the midwife told us that vomiting had come on, which was followed by strong pains, which expelled the bag and the child about 11.30 a.m. The child was stillborn, and had apparently been dead for some

days. The placenta must have been attached to the fundus uteri, for the opening in the membranes which gave exit to the child, was just opposite to it. The woman made a good recovery.

7. Mr. Davies requested me to see with him Mrs. U——, living in West Street. She had had three children previously, and was about eight months pregnant. On the preceding day (March 17th, 1875) she experienced severe pain in the back and thighs whilst walking in town, and on her return home was seized with bleeding from the vagina and faintness. I found on examination the os uteri dilated to the size of a shilling, and could feel the head through the anterior wall of the uterus. The membranes were tense and protruding. As there was at present no hæmorrhage, I advised delay for a short time before rupturing the membranes. This was done by Mr. Davies, after a short rest, and in about an hour the child was born; it appeared to have been dead for some hours. There was no more hæmorrhage, and the mother did well.

8. On December 14th, 1875, Mr. Ellis called me in to Mrs. S——, a multipara, living at Melbourne Villa, Cotham Road; she had then been just confined. I had seen her with him some days before, because there had been been a considerable flow of blood from the vagina, apparently proceeding from some detachment of the placenta; but as there was then scarcely any dilatation of the os tincæ, and the bleeding had quite ceased, we did nothing. Labour came on naturally in a few days, and she was delivered of a large stillborn male child. Mr. Ellis said she was very faint at the time of delivery, and as the placenta did not come away he sent for me. When I arrived I found her still rather faint, and requiring

stimuli frequently. The placenta had been retained an hour and a half. I therefore introduced my hand and peeled it off, with some difficulty, for it was extremely adherent. This was accompanied with some further loss of blood, and she lay for two hours in a very exhausted and pulseless condition. We compressed the uterus, gave a full dose of ergot, and frequent stimuli until she rallied, and after three hours appeared to be doing well. But, about four days after this, symptoms of septicæmia began to show themselves; and as I was attending other cases, Dr. Martyn attended in consultation, instead of me. She had a long tedious illness, in the course of which she had phlegmasia dolens of both legs, pleurisy, and extensive bed-sores, and finally sank, and died on January 17th, 34 days after delivery.

9. On March 28th, 1886, I attended Mrs. S——, Northcote Road, in her third confinement. Labour began about 1 a.m. with a discharge of bright red clots, followed by dull aching pains in the bowels and joints; but not regular labour-pains. This was afterwards followed by some more discharge of fluid blood. I examined and found the os uteri dilated to the size of a half-crown. The membranes covering the head were presenting. I at once ruptured them with my finger, and gave ʒi. of liquid extract of ergot. This checked the hæmorrhage, regular pains came on, and the child was born at 7.30 a.m. It was a female child, stillborn; all efforts to restore it were useless. After this the placenta was expelled, together with some fluid blood and clots. The patient did well.

10. About 1 a.m., April 3rd, 1886, Dr. Elliott summoned me to a case he was attending: Mrs. E——, a primipara living in Anglesea Place. When I arrived

I found her pulseless and in a state of collapse. There had been copious uterine hæmorrhage, and the bed-linen was saturated with blood. Dr. Elliott told me that on the previous day he had examined her urine, and found, that when heated, there was an albuminous deposit, which formed two-thirds of the whole amount. He said that labour had begun with copious hæmorrhage; but yet without proper labour-pains, and that he had ruptured the membranes. There was but little fresh hæmorrhage after my arrival. The os uteri was dilated to the size of a half-crown. Dr. Elliott had tried to introduce the forceps, to hasten delivery; but the os uteri was not large enough to admit both blades. As the collapse was very great, and as she had taken plenty of brandy, I injected ʒi. of sulphuric ether hypodermically, whilst Dr. Elliott applied hot flannels to the region of the heart. However, she did not rally, but sank, and died at 2 p.m. Whilst she was *in articulo mortis*, Dr. Elliott turned and delivered her of a stillborn female infant, and also brought away the placenta.

11. On February 14th, 1889, Dr. Colman sent for me to see Mrs. W——, Waverley Road, a primipara, aged 19, whom he was attending. On arriving he told me that labour commenced with a gush of blood, which suddenly came from her whilst walking in her bedroom. Regular pains then came on, and the labour was tolerably expeditious. He noticed, however, a waxy pallor of the countenance during labour. Soon after this a copious bleeding took place, when the placenta was expelled. When I arrived she had rallied and was rather better. The uterus was well contracted, and there was no more hæmorrhage. The pulse was very feeble, the countenance very pale, and there was severe nausea. I gave her a

dose of ergot, and also sal-volatile and ether, and tightened the binder. The child, which was apparently little short of the full time, was born alive and did well, and the mother also made a fair recovery. Dr. Colman told me that the husband attributed the hæmorrhage to sexual intercourse, which had taken place a short time previously.

Causes.—In England, the term "Accidental Hæmorrhage" is generally applied to that form of *ante partum* hæmorrhage of which I have just given cases: but on the Continent, and especially in France, this term is not in general use; chiefly, I think, because the French differ somewhat from us as to the cause of this complication. In England the hæmorrhage is considered to be usually due to an accidental detachment of a portion of the placenta, and to be occasioned by much the same causes as would produce abortion during the earlier months of pregnancy: such as shocks, either mental or bodily; falls, or blows on the abdomen; excessive muscular exertion, either voluntary or reflex, such as coughing, sneezing, or vomiting. These are, I think, the most frequent exciting causes; but there are others, such as irregular contractions of the uterine muscular fibres, which disturb and break the relations of surface between the uterus and placenta; and if these contractions are sudden or excessive, the placenta may be partially loosened. And, thirdly, uterine congestion: any sudden determination of blood to the uterus and placenta may cause detachment of the latter. In France more importance is attributed to this last exciting cause than in England, and most French authors consider that the hæmorrhage precedes and is the cause, rather than the consequence, of the placental detachment. Velpeau compared it to epistaxis resulting

No.	Date.	Name, &c.	No. of Pregnancy	Original Attendant.	Presentation.	Causes and Complications.	Treatm
1	1848.	Mrs. P., Regent place	Multipara	Mr. Crichton	Feet	Uncertain	ging. re of M
2	March 18th, 1851.	Mrs. G., York buildings	Multipara	Mr. R. M. Bernard	Head and Hand	Apparently caused by a fright	Opiates re of M nd pus
3	1854.	Mrs. S., Cotham hill	Multipara	Dr. Swayne	Vertex	Caused by whooping cough	piate a lled by
4	Nov. 3rd, 1861.	Mrs. L., Cotham hill	1st	Dr. Swayne	Vertex	Caused by too long walk	Ergot a Bind re of M
5	June 19th, 1869.	Mrs. S., St. Matthew's road	6th	Mr. Burleigh	Feet	Intemperance.	Pluggi re of M
6	Oct. 4th, 1873.	Mrs. — Frog lane	2nd	Midwife and Mr. Talbot	Vertex	Uncertain	gentine re of M
7	March 18th, 1875.	Mrs. U., West street	4th	Mr. Davies	Vertex	Caused by too long walk	re of M
8	Dec. 14th, 1875.	Mrs. S., Cotham road	Multipara	Mr. Ellis	Vertex	Adherent Placenta, which had to be removed	livered
9	March 28th, 1886.	Mrs. S., 4 Northcote road	3rd	Dr. Swayne	Vertex	Uncertain	Ergot re of
10	April 3rd, 1886.	Mrs. E., Anglesea place	1st	Dr. Elliott	Vertex	Albuminuria previous to labour	ections re of Turn
11	Feb. 14th, 1889.	Mrs. W., Waverley road	1st æt. 19	Dr. Colman	Vertex	Caused by sexual intercourse	livered stimuli

Treatment.	Result to Mother.	Result to Child.	REMARKS.
gging. Ergot. re of Membranes.	Recovered	Dead	Seven months' child. Apparently dead for some hours.
piates and Astringents. re of Membranes. nd pushed up.	Recovered	Dead	Seven months' child. Apparently dead for some days.
piate at first. lled by natural efforts.	Recovered	Dead	Seven months' child.
Ergot and Turpentine. Binder. re of Membranes.	Recovered	Dead	Large child. Nearly full time.
Plugging. Ergot. re of Membranes.	Died an hour after delivery.	Dead	Eight months' child.
rpentine. Barnes' bags. re of Membranes.	Recovered	Dead	Child apparently dead for some days.
re of Membranes.	Recovered	Dead	Apparently dead for some hours.
ivered naturally.	Died after 34 days	Dead	Septicæmia came on fourth day, December 17th, and she died January 17th, 1876.
Ergot and re of Membranes.	Recovered	Dead	Child had apparently been dead some hours.
ections of Ether. re of Membranes. Turning.	Died immediately	Dead	
livered naturally. stimuli given afterwards.	Recovered	Living	

from excessive congestion of the mucous membrane of the nose; and Cazeaux asks: "Is the separation of the placenta the primitive phenomenon, and has it caused a vascular rupture? or has this rupture taken the precedence, and has the effusion of blood between the afterbirth and the uterus, resulting therefrom, produced the separation of the placenta? The latter opinion appears to me the more probable." *

The cases I have just brought forward tend, I think, to prove that the English view is probably the more correct one. In five, the hæmorrhage immediately followed a very evident exciting cause. For instance, in two cases (4 and 7) out of the eleven it followed a long walk. In one case (3) it was caused by a paroxysm of whooping-cough, in another (2) by sudden exertion caused by fright, in another (11) by sexual intercourse—a most likely cause of excessive uterine congestion and irregular uterine contractions. In most of my other cases the causes are predisposing rather than exciting. Before alluding to these, I shall quote *verbatim* from Barnes's *Obstetric Medicine and Surgery*† some excellent remarks upon this head: "This premature separation of the placenta rarely occurs in the young and robust, differing in this respect from the case of placenta prævia. It is most common in women past thirty-five years of age, who have borne many children, whose constitutions are worn by sickness and poverty, perhaps by intemperance, whose tissues are thereby badly nourished, wanting in tone, tending to atrophy or degeneration; in short, in the same class of persons who are most liable to rupture of the uterus. In one case we found fatty degeneration of the heart. Certain diseases dispose to hæmorrhage, and notably to

* Cazeaux's *Midwifery*, p. 753. † Vol. II., p. 238.

this form. Variola, albuminuria (Blot), leucocythemia (Paterson), acute atrophy of the liver, are amongst the most potent. A strong predisposing cause may exist in *a morbid condition of the placenta*, such as fatty degeneration, fibrinous masses, or atrophy, by which the uniformity of its structure is impaired. A diseased placenta, especially one of unequal consistency, containing solid lumps, will not follow and adapt itself to the varying movements of the uterus, and the changing superficial area of the the placental site, so easily as a healthy placenta does."

In proof of the correctness of this description of Dr. Barnes, I will refer to the three worst, in fact, to the three fatal, cases in my series. In all of these a morbid condition of the blood was the predisposing cause. In case 5, this was due to intemperate habits; in case 8, there was fatty degeneration and partial adhesion of the placenta; and in case 10, well-marked albuminuria.

There are still three cases (Nos. 1, 6, and 9) in my series, in which no evident exciting or predisposing cause was observed. Probably, local congestion may have preceded and occasioned the bleeding, or possibly the lowest edge of the placenta may have been attached just within the lowest or dangerous zone of the uterus, as described by Barnes, but so high as to be out of reach of the finger. Such a case would really be one of partial placenta prævia. Still, however, notwithstanding these anomalous cases, there is, I think, abundant evidence to justify the use of the term "Accidental Hæmorrhage."

Frequency.—There is some discrepancy of evidence as to the frequency of *Accidental Hæmorrhage*. All statistics show that it is a rare complication of labour, just as *Unavoidable Hæmorrhage* is; but authorities differ as to the relative frequency of accidental and unavoidable

hæmorrhage. On the whole, the most reliable statistics are those which are chiefly obtained from large lying-in hospitals, and not from private practice. Dr. Churchill gives a list of this kind, amounting in all to 92,424 cases. In these there were 251 cases of accidental, and 124 of unavoidable, hæmorrhage; or rather more than twice as many of the first kind. In my own practice, however, I have met with 11 cases of the former, and 23 of the latter, a result that would at first sight lead to just the opposite conclusion. But the statistics of private practice are very apt to lead to false conclusions, unless one carefully eliminates all the consultation-cases. If I treat my own cases in this way, I find that in 3 of the 11 of accidental hæmorrhage I was the original attendant, and in only one of the 23 of unavoidable hæmorrhage; thus showing a still greater preponderance of the former. The reason why there are so many more consultations in cases of placenta prævia, than in accidental hæmorrhage is, that the treatment of the latter is comparatively free from doubt or difficulty; whereas that of the former tries to the utmost the nerve, judgment, and skill of the practitioner first in attendance, and he therefore, very wisely, requests a consultation. After carefully excluding all consultation-cases, I find that I have met with 3 cases of accidental hæmorrhage in a total of 1,539, or exactly 1 in 513 cases. This is a rather greater frequency than is met with in the Guy's Hospital Lying-in Charity, where, according to Dr. Galabin, it is about 1 in 760 cases.

In by far the greater number of cases the nature of the accident is soon apparent by an external escape of blood, before any serious symptoms of collapse are manifest. A portion of the placenta becomes detached, and blood becomes effused between the membranes and the uterus.

This is usually accompanied with dull pains, like those of colic in the region of the fundus uteri; and also some irregularity in the shape of the fundus. But the effused blood soon finds its way to the os uteri, and escapes externally. The nature of the case is then apparent, especially if the os uteri be more or less dilated. The history of the case, the inability to feel any portion of the placenta within the os; if labour-pains are present, the fact that they check rather than increase the bleeding —all these symptoms will serve to point out the nature of the case, and to render the diagnosis of accidental from unavoidable hæmorrhage comparatively easy, and the prognosis comparatively favourable. Most of my own cases were of this kind. But in other and fortunately much rarer instances, there are little or no signs of labour, the os uteri remains nearly closed; it is a long time before blood appears externally, and before it does, severe constitutional symptoms of hæmorrhage have set in. In these the diagnosis is more difficult, and the prognosis less favourable. Some of the cases I have given partook more of this character, and were attended with symptoms more or less critical. But the worst cases of all are those of what is called *concealed hæmorrhage*. In these there is no external show of blood; but there are dull and obscure pains in the belly like those of colic, combined with tension and swelling of the fundus uteri, and succeeded by pallor of countenance, failure of pulse, sighing respiration, vomiting, syncope, and extreme collapse, so that the patient may actually die undelivered, and the true nature of the case be unsuspected by an inattentive or inexperienced practitioner. It may be mistaken for a severe case of syncope, arising from that common excuse for ignorance, a "weak heart;" and, in consequence of

the popular prejudice that exists against any *post mortem* examination of a woman who dies undelivered, the truth may never be discovered. In these cases the detachment usually begins in the centre of the placenta, and proceeds towards the circumference, until a large amount of blood accumulates between the placenta and membranes and the uterine wall, distending the latter almost to rupture, and inducing an amount of shock which increases still further the previous collapse. In this way the placenta may be more completely separated from the uterus than it is in placenta prævia, without giving the same obvious signs of danger. No proper labour-pains come on, because the shock caused by the blood-pressure renders irregular, perverts and even paralyses the normal uterine contractions. This form of accidental hæmorrhage is nearly always the result of great constitutional debility, and is happily exceedingly rare. I have never met with a well-marked case. Dr. Galabin records only one out of a total of 23,591 deliveries in the Guy's Hospital Lying-in Charity. Dr. Goodell of Philadelphia, however, succeeded in obtaining from every available source a record of no less than 106 of these critical cases, which he published in the *American Journal of Obstetrics* for 1869. Of these 106 cases, 54 or rather more than half the mothers perished; and of 107 infants, 6 only were known to have been saved. Thus the mortality to the mothers was nearly 51 per cent., and to the children 94 per cent.; a mortality to both which far exceeds that from placenta prævia.

In the ordinary run of cases of accidental hæmorrhage the prognosis is not nearly so grave. According to Dr. Churchill's statistics, the maternal mortality is nearly one in four; in Dr. Galabin's, nearly 1 mother in 6 died of

hæmorrhage. This is much less than the mortality in cases of placenta prævia. In my own 11 cases, there were 3 maternal deaths; or nearly 1 in $3\frac{1}{2}$, which, according to Dr. Churchill, is the usual maternal mortality in placenta prævia, and is higher than that which is generally observed in accidental hæmorrhage. But then it should be noticed that one of the deaths in my list occurred 34 days after delivery, and was occasioned not by hæmorrhage, but by septicæmia; whereas another was in a great measure due to albuminuria.

The statistics as to the infant mortality in accidental hæmorrhage are, I find, very incomplete and not very reliable. I cannot get any information from Dr. Churchill's on this point. This kind of hæmorrhage is generally considered to be quite as dangerous to the child as that proceeding from placenta prævia. My own experience proves it to be still greater. In my 11 cases only one child lived. The rest died; nearly all being born dead, and beyond all chance of resuscitation. Most of them, judging from appearances, looked as if they had been dead for some hours. Dr. Barnes remarks that, "the prospect of the child's survival depends greatly on the extent of the detachment of the placenta, and the time that elapses before its extrication from the womb." * Now, as regards the first of these conditions, I believe that the placenta at birth is often more detached in accidental than in unavoidable hæmorrhage. In several of my cases of the former, the same pain that expelled the child, brought away also the placenta and several clots; the placenta appearing as if it had been quite detached for some time, and lying loose in the cavity of the womb. Again, the time that elapses before the placenta

* *Obstetric Medicine and Surgery*, Vol. II., p. 241.

is extracted from the womb, is generally much greater in accidental than in unavoidable hæmorrhage. In the former, especially if the result of a shock or fall, the hæmorrhage often begins before the os uteri is at all dilated; but in the latter there is nearly always some dilatation before the bleeding becomes dangerous; and when it is so, the practitioner delivers as quickly as he can with safety to the mother; and this very prompt delivery also gives the child a better chance of life. Whereas in accidental hæmorrhage, the detachment of the placenta takes place very early, or even precedes the labour, and is not usually necessary or even advisable, if we consider the safety of the mother, to deliver so promptly, or even to interfere at all after the membranes are ruptured. But this very delay, although perhaps to the advantage of the mother, is a sort of additional danger to the child; for when its connection with the mother is almost, perhaps quite, severed, the sooner it is delivered the better chance it has of living. The reasons I have given will, I think, account for the fact that in my 11 cases of accidental hæmorrhage only 1 child was saved; whereas, in the 23 I have recorded of placenta prævia, as many as 5 were born alive. Moreover, as far as I have seen, the child is more apt to be born prematurely in accidental than in unavoidable hæmorrhage. I am therefore led, as far as my own experience goes, to regard accidental hæmorrhage as fraught with greater danger to the child than perhaps any other complication of labour.

With regard to the *presentation*. In the 11 cases I recorded it was abnormal in three; of this the feet presented in two, and the head and hand in one. In 23 cases of placenta prævia which I have recorded, there were six abnormal presentations: so that in both rather

more than a quarter were abnormal presentations. Although the tendency to this departure from the ordinary course of nature appears to be equal in both of these complications, yet it is greater, I think, than can fairly be attributed to premature delivery only.

With respect to *treatment*, I find that, in 3 cases out of the 11, delivery took place naturally. The labour was quick, and the symptoms were not so urgent as to render active interference necessary. In 3, plugging of the vagina was resorted to on the appearance of hæmorrhage. In each case this had been done, before my arrival, by the practitioner previously in attendance. I have myself never had recourse to the vagina plug, in such circumstances; for I distrust it very much in cases of accidental hæmorrhage. It merely hides the danger; it does not arrest the flow of blood, but merely prevents its external manifestation; whilst all the time it is in use, blood may be accumulating within the uterus to a fatal extent. In placenta prævia the vagina plug is comparatively safe; for it presses on that part of the uterine neck from which the placenta is already detached, whilst, at the same time, the adherent portion of the placenta above this point prevents the blood from finding its way back into the uterine cavity. The only kind of plug which I consider admissible in cases of accidental hæmorrhage is one which is used to dilate a small and rigid os, so as to prepare the way for further operations; such a plug, for instance, as a sponge-tent, or, what is much better, one of Dr. Barnes's hydrostatic bags; but whilst these are in use the patient should be carefully watched. In only one of my cases was it necessary to use one. Medicines, as a general rule, are not of much service in accidental hæmorrhage, except when given early, before the symptoms are

urgent, and when we wish to gain time. For this purpose opiates, and astringents, such as the acid infusion of roses, acetate of lead, and turpentine, may be used with good effect, when combined with the most perfect rest in the recumbent posture, and the application of cold, either by wet pads or, what is better, an India-rubber bag containing ice placed over the fundus uteri. In five of my cases such measures were employed; but I cannot say that their effect appeared very decided. The remarks I am making, however, do not apply to another medicine that may be used with much better effect later on, and that is the ergot of rye. The fact is, that in bad cases of this kind, we must trust to our hands and not rely upon drugs. The remedy, above all others, to be adopted is one which we owe to Puzos, a French accoucheur who lived in the last century; and that remedy is *rupture of the membranes*. As Dr. Barnes remarks: "The first thing to do in all the cases is to rupture the membranes. This, by letting off the liquor amnii, takes off the strain on the uterine fibre, allows the walls to resume their natural condition, and provokes labour." Should there be great prostration, it will be well, before resorting to this or any kind of manual interference, to endeavour to rally the patient (as in case 10) by a hypodermic injection of ʒi. of sulphuric ether, which may be repeated every half hour if necessary. Should the prostration be accompanied with a great want of uterine action, we should endeavour to remedy this by applying an abdominal binder, and gradually tightening it over the fundus uteri; at the same time that we give two or three doses of ergot either by the mouth or by subcutaneous injection. If the os uteri is so small and rigid as not to admit of further measures, it should first be dilated by Barnes's bags until it is large

enough either to admit the hand or forceps without difficulty. Forced delivery in these cases is dangerous, and always, if possible, to be avoided. It inflicts a shock on the system which is likely to increase the previous prostration, and it may cause fatal laceration of the uterine neck; but, if after sufficient gradual dilatation of the os uteri, effectual labour-pains do not set in, delivery must be accomplished either by turning or the forceps, according to the judgment of the accoucheur as to which operation can be performed with least difficulty, and with the smallest amount of shock. After the birth of the child, the greatest care should be taken to ensure proper uterine contraction, and guard against the occurrence of *post partum* hæmorrhage, a very small amount of which may prove fatal to a patient who has already lost a large quantity of blood. In conclusion, I may say that in the majority of cases of accidental hæmorrhage, it will be sufficient to control the bleeding by rupturing the membranes; after this the rest of labour may be left to nature: but in the minority of cases, which are more severe, and accompanied with greater prostration and greater want of uterine power, it will be necessary to terminate the labour artificially. In selecting the best mode of accomplishing this, the safety of the mother is the first, indeed I may say the only, consideration; that of the child is already compromised by the hæmorrhage to such an extent, and the chance of saving its life is so extremely small, that the accoucheur would be justified in resorting even to craniotomy (as recommended by Dr. Robert Lee in such cases), if he thought that he could thereby deliver the mother with less shock, with greater ease, and therefore with greater safety.

Clinical Records.

CHRONIC PHARYNGITIS WITH ELONGATED UVULA.

By P. Watson Williams, M.B. Lond., Physician in charge of the Throat Department of the Bristol Royal Infirmary.

Chronic Pharyngitis, or clergyman's sore-throat, is one of the most intractable conditions that are met with, and consequently has received much attention amongst laryngologists; but it is especially to those cases in which the *uvula* is relaxed and elongated that I invite attention in this paper.

The uvula is almost invariably more or less relaxed in chronic pharyngitis; and, while the elongation in some cases gives rise to no symptoms, it generally increases the unhealthy condition apart from any of the exciting causes which initiated the mischief, often producing alarming symptoms and requiring special treatment.

Labus of Milan very conveniently classifies the cases under two heads, viz:

Class I.—Those in which the uvula and soft palate are merely relaxed, otherwise remaining normal in appearance, there being no congestion or hypertrophy.

Class II.—Those in which there is hypertrophy and chronic congestion of the soft palate and fauces, often resulting in degeneration of the glandular structures of the naso-pharyngeal mucous membrane, and associated with severe constitutional disturbance. In these cases a

varicose condition of the veins at the back of the tongue frequently results from constitutional irritation and prolonged congestion.

In the simpler cases, where there is merely relaxation of the uvula and soft palate without hypertrophy or congestion, the symptoms are mainly impairment of the quality and strength of the voice, and are chiefly observed in professional singers.

Labus, as the result of observation in 1,132 cases of professional singers who applied to him for treatment, found that the alteration and impairment of the voice was frequently due, not to the mere elongation of the uvula so much as to the paresis which resulted, preventing the proper and necessary movements of the uvula in singing high notes, and leading to forcing the voice, which becomes flat and tremulous and quickly tired. If the voice be still much used the constant strain may lead to chronic congestion and hypertrophy, and the case passes into the grave type. In a marked case the patient usually complains of continual hawking, with a feeling of some foreign body in the throat that cannot be coughed up, often likened to a hair or fish-bone in the throat. The cough may be very severe, especially at night on lying down, and on rising in the morning, often accompanied with nausea, and ending in vomiting from the tip of the uvula tickling the back of the tongue. Lennox Browne *(Diseases of the Throat)* mentions the case of a medical practitioner who consulted him, "complaining of constant pain in the left subscapular region, with irritable cough, loss of flesh, and impairment of general health. On the recommendation of two physicians, eminent in chest diseases, he sold his practice; but he entirely recovered his health after the removal of his uvula, and fourteen

years later was still active and engaged in professional work."

A similar case, under my care at present, is rapidly recovering after removal of the uvula: this patient gained three pounds in weight in the first fortnight. Nor is it surprising that the loss of sleep and frequent vomiting should result in great emaciation and weakness, which, in association with cough, with expectoration of mucus streaked with blood from the pharynx, should lead one to suspect that the patient is suffering from tubercular disease of the lungs, especially in those who also complain of localised pains in the chest—pains which are purely reflex in origin.

The amount of blood that may be lost in this way is very great. One patient, now in the Bristol Royal Infirmary, had coughed up blood every morning for nine months, varying in amount from a teaspoonful to a cupful. His uvula has been removed, and he is rapidly recovering.

I recently saw a patient in consultation who suffered from severe and urgent attacks of dyspnœa on lying down at night, in addition to other minor symptoms, and thought to be due to some serious laryngeal affection. The dyspnœic attacks were the result of spasm of the glottis, caused by an elongated uvula; removal of the uvula prevented a recurrence of these alarming attacks.

A variety of causes may lead to this elongation of the uvula, the commonest cause being the using of the voice during catarrhal attacks—a time when all the tissues of the naso-pharynx are congested and weakened; it is therefore most frequently found in those with whom speaking or singing is a means of livelihood or profession, such as clergymen, schoolmasters, actors, etc.

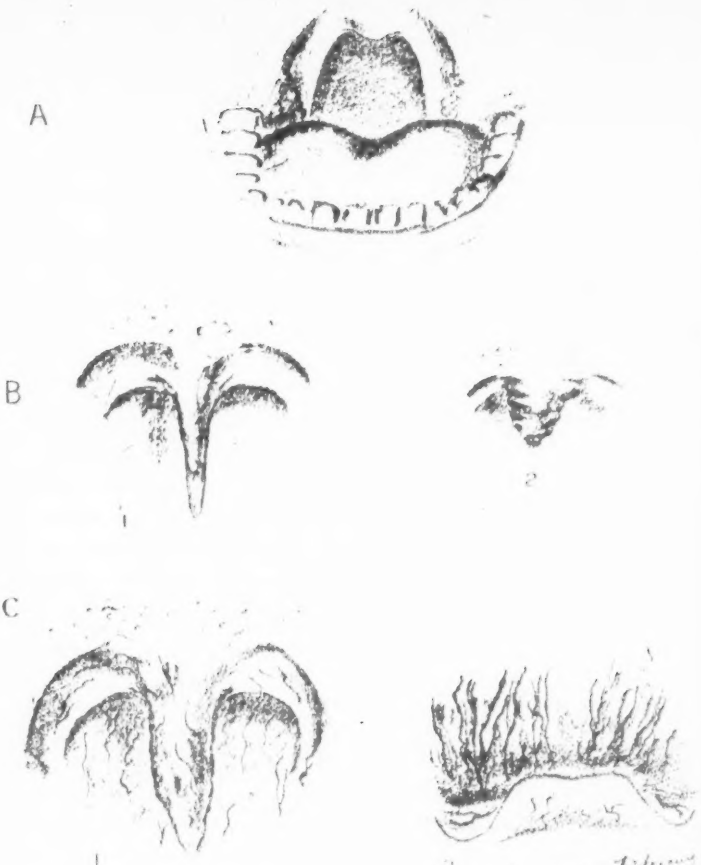
The paresis of the soft palate is probably due to peripheral neuritis of the posterior palatine nerve from compression at its exit from the posterior palatine canal, containing the motor nerve fibres for the levator palati and azygos uvulæ, as well as the sensory nerve supply for the velum palati, and being exactly analogous to Bell's paralysis due to cold, and resulting from compression of the facial nerve at its exit from the stylo-mastoid foramen. Woakes points out that this implication of the posterior palatine nerve accounts for the paresis of the soft palate so frequently associated with "necrosing ethmoiditis."

Another frequent cause is nasal obstruction, causing the patient to breathe through the mouth. Minor degrees of nasal obstruction are frequently overlooked; but compelling the patient to sleep with the mouth open, he wakes in the morning with a dry parched tongue. It is not surprising that slight, but oft repeated, attacks of naso-pharyngeal congestion should result from this unnatural respiration.

Acute pharyngitis and other predisposing conditions are numerous: such as chronic portal congestion, chronic gastric catarrh, alcoholism, the tobacco-habit, phthisis and chronic bronchitis, breathing in crowded rooms and dusty atmospheres.

In treating cases of relaxed uvula, it is well to give local astringent applications a fair trial, especially in the milder cases. These must be applied to the back of the soft palate and the posterior nares, as well as to the fauces.

In one case, in a child, where local astringents failed, and removal of the elongated uvula was objected to, I obtained a cure by daily local Faradisation for three weeks. I need hardly add that this is an unnecessarily tedious and expensive process.



A

Showing the retraction of the normal uvula in the production of a high pitched pure tone

B CLASS I

I *During natural respiration*

II *The same on striking a high note, showing the unnatural wrinkling of the mucous membrane*

C CLASS II

I *The elongated and hypertrophied uvula*

II *Varix of the tongue*

When local applications have failed, the uvula ought certainly to be partially removed. In the severer cases it is better to do this little operation at once. In properly selected cases there is no simple operation which is more urgently called for, and which brings about such excellent results in so short a time.

Cases of elongated uvula, pure simple relaxation, are not always easily recognised. In doubtful cases the patient should be directed to open the mouth and breathe quietly. At first the uvula will be partially retracted into the soft palate, but, if "elongated," it soon drops, and the tip rests on the back of the tongue. On striking a high note, the normal uvula is almost completely drawn up in to the soft palate, which is raised, but the relaxed uvula is shortened in wrinkles of redundant mucous membrane (*vide* Figure B2.) The redundant translucent mucous membrane is obvious along the free edges of the velum and at the tip of the uvula.

I have had a large number of cases, and have always obtained good results by ablation of the uvula. Labus, as the result of his extensive experience in ablation of the uvula in professional singers, was convinced that when carefully done, so as only to remove the abnormally elongated portion of the uvula, the operation produced no deterioration, but almost invariably a marked improvement, in the quality of the voice.

In all cases the nasal passages should be examined for obstruction. If obstruction exists, it must be appropriately treated if a good result is to be obtained and a permanent cure effected.

TUBERCLE OF MEDULLA OBLONGATA.

By J. Michell Clarke, M.B., M.A., Assistant-Physician to the Bristol General Hospital.

F. W., a boy of 8 years of age; there was some evidence of phthisis in the family history.

His mother attributed the illness to a fright twelve months ago, when the boy became afraid to go to bed by himself. After a short time he began to vomit constantly every morning, the vomit consisting of altered food. He attended for a few weeks as an out-patient, and then was admitted into the Hospital, as the vomiting and wasting continued unchanged.

January 30th. — On admission he was pale and emaciated; he vomited every morning before breakfast, but not again during the day. On examination no abnormal physical signs could be discovered in the chest or abdomen.

Vision was good; there was no affection of the special senses. There was no headache, nor giddiness, no paralysis, nor any convulsions nor fits of any kind. The pupils were equal, and acted to light and accommodation. Pulse, 80—90. Temperature never higher than 99°. Urine normal. The vomiting continued until one month after admission, when it ceased; he gained flesh and strength, and was able to take solid food.

On March 7th the left knee became full of fluid, which subsided gradually and disappeared in about three weeks.

On March 13th the vomiting returned, with troublesome hiccough, and occurred immediately after taking food at any time in the day. So long as he took no food, there was no sickness. On March 26th he brought up a

large quantity of black tarry fluid. The vomiting continued with rapid emaciation until his death, which took place on April 10th. During the last three weeks the pulse was rapid, from 120—140, and for the last three days he could not bear the light; the night before death he was delirious, and did not recognise the nurse. There was no pain throughout the illness.

At the autopsy, six hours after death, the lower lobe of the left lung was adherent to the diaphragm. At about its centre near the under surface was a nodule about the size of a hazel nut, of firm consistence, and of white colour, with patches of dark pigment. It was surrounded by a zone of infiltrated and inflamed lung-tissue, in which were seen some tubercles. Apices and rest of lungs normal.

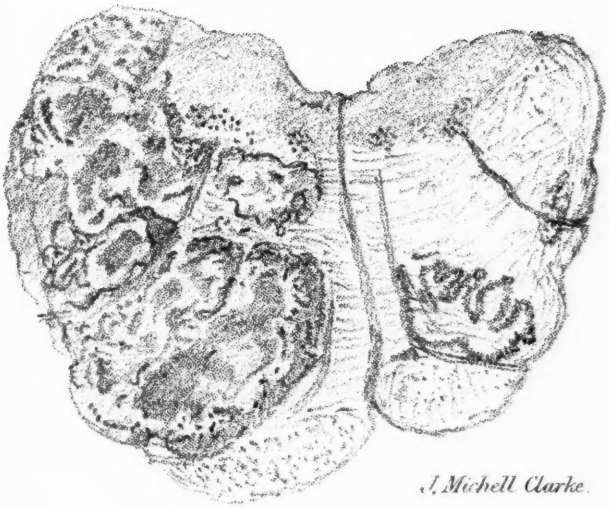
The left side of the medulla oblongata appeared swollen to twice the size of the right, and, on cutting sections through it, there was found a mass of about the size of a large hazel nut. It extended from about an $\frac{1}{8}$th of an inch above the junction of the pons and medulla to just above the commencement of the pyramidal decussation below. Its greatest diameter was about half an inch at the middle of the fourth ventricle, gradually becoming smaller towards its upper and lower extremities. At its lower end it, however, somewhat increased in size, and here there was also a small nodule on the right side in the postero-lateral region. The tumour infiltrated at the middle of the fourth ventricle nearly the whole of the anterior and lateral regions, the anterior pyramids being clearly separated from it in front, and the grey matter of the central regions and of the eminentia teres being partly infiltrated, but chiefly pushed upwards and towards the middle line. In the lower part of the pons the

growth lay just above the olivary body, and in a direction inwards and upwards.

The middle and upper part of the pons, and all the other parts of the brain, were quite normal. The tumour consisted of a central caseous area, fairly firm in consistence, white in colour, with patches of dark pigment, surrounded by a zone of infiltration, and in this microscopical examination showed numerous giant-cells. The nucleus of the pneumogastric appeared to be chiefly affected by the deposit, the other nerve nuclei and fibres being pushed aside by it. The drawing shows the extent of the growth at the level of the middle of the calamus scriptorius, the commissure is pushed over to the right, and the pyramidal tract downwards. The olivary body is totally destroyed at this level; but remains of it could be detected, both above and below this.

The liver was fatty; the stomach and other organs normal.

The most remarkable feature of the case is the absence of symptoms, beyond the vomiting, to indicate the nature of the patient's complaint. It would seem improbable that a mass of such relatively large size could occupy a region so important to life without producing more widespread effects. The tumour, however, seems to have pushed aside, to have infiltrated without destroying, the nerve-centres in its neighbourhood. Thus the pneumogastric nucleus was the only one affected to such an extent as to interfere with the due performance of its function; and the effect on this was rather one of irritation than of paralysis. The hypoglossal nerve-roots and the pyramidal tracts were pushed aside. As a general rule, tuberculous deposits, from their greater tendency to early caseation, rapidly break down and destroy the tissue in which they



J. Michell Clarke.

Section of Medulla at level of middle of Calamus Scriptorius.

(nearly four times natural size)

grow; while carcinomatous and sarcomatous growths may infiltrate an organ without causing sufficient destruction of the histological elements to prevent their performing their functions.

The boy died from the long-continued vomiting and consequent emaciation, without any of the localising symptoms that one would have expected from a tumour in this situation. It is interesting to note the entire absence of abnormal phenomena connected with the vaso-motor and respiratory centres and of sugar from the urine.

The characters of the deposit in the left lung indicate that it was antecedent in date to that in the medulla: the course of events being probably the lodging of an embolus —bacillary or otherwise—which had passed up the left vertebral artery from the nodule in the lung. From the position of the tubercular mass in the centre of the lower lobe of the left lung, surrounded on all sides by healthy lung-tissue, its existence could not have been diagnosed during life. The case affords another instance of the occasional liability in pulmonary disease for secondary intracranial deposits to occur, Apart from this accident, the lesion in the lung appeared to have become inactive.

Health-Resorts in the West of England and South Wales.

III.

WESTON-SUPER-MARE.

BY

CHARLES VERNON HITCHINS,

Medical Officer of Health for Weston-super-Mare.

BUT few people can now say, as they did some few years ago, "Where on earth is Weston-super-Mare?" for this bright little town has in a brief period grown from a village composed of a few fisher-huts, scattered here and there about its sandy wastes, to a fashionable seaside resort of no mean renown, bidding fair to beat in the struggle for popularity many, if not all, of its West of England rivals.

In the month of August of 1819, when the justly celebrated Mrs. Piozzi, Dr. Johnson's friend, was sent to Weston for her health by her Bath physician, she found the village very far indeed from the madding crowd; and in a letter to Sir James Fellows she pithily describes her temporary abode: "The breezes here are most salubrious; no land nearer than North America when we look down the Channel; and 'tis said that Sebastian Cabot used to stand where I now sit, and meditate his future discoveries of Newfoundland. Who would be living at Bath now? . . . . I enquired for books. 'There were but two

in the town,' was the reply: a Bible and a *Paradise Lost*. They were the best, however. No market; but I didn't care about that."

In 1811 the census-returns showed a population of 163, and this number increased by leaps and bounds till in 1881 it reached 12,872; and it is now estimated, not by *rule of thumb*, but by those most likely to know the real facts, that the normal residential population is 18,000 at least, increased by several thousands during the summer season. The marked increase in size is clearly demonstrated by the figures of the assessable value published in the yearly synopsis of the town-accounts by the local authorities. Thus, in 1842, when the first Improvement Act was passed, the rateable value was £7,964, while in March, 1889, it was £82,802 2s. 3d.

Weston-super-Mare is situated on a spur of the Mendips, and is built partly on the southern slopes of the well-wooded Worlebury Hill and partly on the level immediately beneath, stretching year by year further along the coast-line of the Bristol Channel and also inland, and adding villa to villa and street to street with astonishing rapidity. The distance from London is 135 miles, and from Bristol only 18. The journey down from the former place is most easily accomplished. The intending visitor can leave the Great Western Railway Terminus at Paddington by the wonderful "Zulu"—that smooth-flying three o'clock afternoon express—and, after changing at Bristol, stand on the Weston platform at half-past six, with the salt breezes from the sea blowing in his face, and reach his hotel or his lodgings in time for his dinner or supper, whichever he may call his evening meal. From Manchester, Weston is also remarkably easy of access. The merchant can accomplish a morning's

work, leave the city by the 12.10 train, and arrive at 6.35 at the West of England Brighton. The villa residences are for the most part built of the blue lime-stone procured from the town quarry, and have a solid and substantial appearance, the stucco or cemented front which frequently covers builders' shortcomings being very seldom seen. They dot the side of the hill in a most picturesque manner, and being sheltered from the north and east by the rising ground at the back, and embowered in trees and shrubs of luxuriant growth, afford shelter all the year round to the most delicate. Why go to the South of France and endure the discomforts of a foreign country and the doubtful drainage, and of dwelling amidst unsympathetic strangers, when the invalid can live at home amongst friends, with English comforts and a climate resembling the health-resorts of the so-called Sunny South, in the sheltered situations of Weston? The fact is, the home health-stations are far too little recognised and understood as winter-resorts.

The sea recedes a considerable way in Weston Bay, leaving exposed to the sun and the sea-breezes a large tract of mud, at which some laugh, some sneer. Let them. Unhealthy? No: this mud is one of Weston's most important features; for the Atlantic breezes blowing across it catch up a large amount of ozone and iodine, and then discharge their load into the lungs of visitors and residents alike, making the weak strong and the strong feel as giants, bringing back the glow of health to the jaded and overworked dwellers in cities, and making the convalescent forget that he has ever lain on the bed of sickness. Three hundred acres of well-planted woods, through which the public are permitted to roam at will, form no small attraction to this health-resort. Few sea-

side places on our coasts can boast of possessing such a pleasing and beautiful adjunct, and Weston can well look with pride and thankfulness upon her free wooded slopes; and those with health impaired, to whom the windy seaside is too invigorating, can revel in the sheltered moss-grown paths and shady avenues of these Weston woods without fear of being confronted by an indignant keeper, or being frightened with a "Trespassers will be prosecuted" board.

The first questions usually asked in these latter years of the nineteenth century, when everybody, more or less, is educated up to a high standard of hygienic knowledge, are: Is the town well drained? And is there a good water supply? To both questions we can safely answer in the affirmative. As to drainage, large sums of money, something like £50,000, have been expended in the construction and ventilation of the drains. The outfall is some two miles from the town, at the mouth of the Uphill River; and the sewage is discharged by means of a penstock into the ebbing tide only, when it is carried by the swift current well clear of Weston Bay and down the Bristol Channel or the Severn Sea, as it was formerly called. The remarkable rise and fall in the tides in this Channel are particularly favourable for the effectual removal of town-sewage; at the Weston pier-head, for instance, the tide rises on an average some 38 feet. About six years ago the open ventilation system was adopted, upon the recommendation of the Local Government Board in London, and it is found to answer satisfactorily and well. In the place of open gratings in the streets, which were considered objectionable by some, the local authorities have, after obtaining the consent of private owners, wherever opportunity occurred, erected large

ventilating shafts, six or eight inches in diameter, against the sides of buildings in not too conspicuous places; and these carried well above the eaves and away from all windows have been found to answer every purpose, and to relieve the sewers of gas very effectually. There is also a system of flushing the main drains, which works to great advantage. An excellent arrangement is also maintained by which any house can be overhauled by the sanitary inspector of the Local Board, free of charge, at the request of the landlord or of an intending lessee or purchaser; and the inspector, if desired, and if the premises inspected be in a satisfactory sanitary condition, will give a certificate thereof. These certificates are yearly becoming more and more appreciated; for lodging-house and hotel keepers find it much to their advantage to have one framed and hanging in their hall for any lodger's inspection; while purchasers of houses buying subject to such a certificate may be sure that they will not be made liable for heavy drainage-expenses for years to come. The local authorities have formulated strict rules for the proper ventilation and disconnection of all pipes, it being their continual anxiety to maintain a high standard of healthiness. As to the water, which is, as it always should be, in the hands of the town, there is an unbounded supply, though the quality is somewhat hard. It bubbles up in two wells connected together and cut in the mountain-limestone, each well being only 25 feet deep. The quantity obtainable from this source is 75,000 gallons an hour—about three times the present requirements of the town. Within the last two years new mains have been laid throughout the town to meet the growing needs of the population, and larger and most powerful engines have been erected to pump the water into the two reser-

voirs, one of which is situated half way up the hill, the other upon the summit. The quantity of water is so copious that there has never been any occasion to place the inhabitants upon short commons even during the driest season; and the house-supply is constant night and day. The land, several acres in extent, immediately above and around the wells and pumping-station, has been recently acquired by the town-authorities, upon the advice of the Local Government Board, to prevent any possible risk of the source of supply being in any way contaminated by building-operations being carried on in too close proximity.

The value of a health-resort is more or less judged by its death-rate; and when this test is applied to Weston, it will be seen that the result is satisfactory. The death-rate calculated upon the present population shows for the past three years an average of 13·3; for 1888 it was only 12 per thousand; while for the quarter ending March last it was 9·6. The rate from zymotic diseases for the past three years averaged 1·3; from phthisis, ·98; and from respiratory diseases, 2·7. The corresponding rates for all England for 1886, the last published, were 2·6, 1·7, and 3·7.

The town is well provided with medical institutions, the most important being the General Hospital, which, commencing years ago in a very small way, now contains 31 beds, and receives patients from all quarters. It has an excellently-fitted children's ward; and in connection there is a provident dispensary, to which belong more than three thousand members. The Infectious Diseases Hospital is situated about a mile from the town, and is built according to the official requirements. It contains eight beds, is kept in complete order, and is open to all

classes. On the beach midway between Weston and Uphill is situated a stately pile of buildings known as the West of England Sanatorium, one of the largest and best-appointed of the kind in England: more than a thousand patients pass through its doors every year, and these are convalescents only. It does a great work. Visitors are invited to see it in the afternoon of any week-day, and to attend the chapel-services on Sunday.

The climate may be described as equable, dry, and bracing. The mean annual temperature is almost identical with that of London; but as it is instructive to note how fallacious is this bare *datum*, I venture to quote from statistics kindly supplied by Mr. R. S. Culley. By comparing the mean monthly temperature of the two places it is shown that during the summer months—viz: May, June, July, August, and September—Weston is the cooler; whilst from October to March it is warmer than London, and in April the monthly means are equal; the maximum winter-difference being 8°, and the maximum summer-difference 12°, both in favour of Weston.

The character which Weston has for dryness depends not so much on the record of its rainfall as on the porous nature of its limestone soil and the evaporating power of its breezes. Visitors are often surprised to find that after heavy rain an hour or so suffices to render the roads attractive to the pedestrian or cyclist. The driest months are March, April, and June. Most rain falls in October. Of wind there is seldom or never any lack in Weston. Even on the hottest day a refreshing breeze is generally to be felt; and at intervals, especially about March and mid-October strong W. and S.W. gales visit us. These constant atmospheric movements, combined with and aided by the extensive rise and fall of the tide and the expanse of

ozone-yielding surface thereby exposed, the clearness of atmosphere and brightness of sunshine, combine to produce a state of chemical activity to which I should attribute the bracing nature of the climate.

As regards the medical aspects of Weston-super-Mare, it follows from the preceding remarks that those diseased constitutions requiring a warm and equable, yet bracing and dry climate do best here.

Thus, strumous patients with enlarged glands or joints are frequently seen amongst our visitors and schools, and in the convalescent homes.

Patients with delicate chests derive much benefit from the warm and tonic climate, but do well to avoid the March winds; and consumptives in the later stages should not come here except in the full summer. I may notice in passing the great comparative rarity of phthisis amongst the residents, a fact which the statistics partly show, and one which is remarked on by medical men and others accustomed to hospital and private practice elsewhere.

A large section of our invalids come hither from Bath to recruit, after undergoing the anti-arthritic treatment of the justly-famed mineral springs there; and to these rheumatic and gouty patients a word of caution is necessary; viz., regarding the hardness of the water. If they consume this in large quantity, it should be decalcified by the simple process of boiling and subsequent filtration.*

There is an old precept, "Take a blue pill the first night you get to the seaside"; and although I do not counsel its literal enforcement, yet a judicious aperient during the first few days of a visit here would often obviate an attack of liver-derangement in those naturally predisposed thereto, and in others who acquire this

* A proposal for softening the water at the springs is under consideration.

predisposition by yielding, "not wisely but too well," to the appetising influences of the air. Another of the primary effects of coming here is a tendency in the majority of visitors to increased sleep: this tendency may last from two or three days to as many weeks, after which they usually become acclimatised. Most nervous affections (especially those of a neurasthenic type) do well here, e.g. persons suffering from over-brainwork, from neuralgia (not due to carious teeth and other local causes), cases of hysteria, hysterical aphonia, and such like. In this connection I may perhaps mention, as somewhat suggestive and curious, the fact that from time to time instances occur of parents coming here with families sufficiently old to make them consider a nursery in the new home altogether superfluous, yet, after a while, they discover that fresh parental joys await them.

Children seem to thrive here in a remarkable degree, whether more than at other seaside places I cannot say; but the healthy look of the natives and the benefit that the children of visiting families derive are matters of frequent comment.

There is no lack of amusement for those who cannot exist without bands and illuminations and excitement; and while some prefer the fashionable sea-front lounge or the streets of shops, others can inspect one of the most perfect of the ancient British dry-walled fortresses extant, with its pit-dwellings, which immediately overhangs the town, or seek out the quiet beauties of the surrounding country; but the health-giving breezes, the bright sunlight, the shady woods, and the crisp waves breaking on the sands and pebbly beaches are for all.

NOTE.—I am indebted for valuable assistance in the preparation of this paper to Mr. Ernest E. Baker, F.S.A., and Dr. Rossiter.

Reviews of Books.

Diseases of the Eye. By GEORGE A. BERRY, M.B., F.R.C.S.Ed. Edinburgh: YOUNG J. PENTLAND. 1889.

This is undoubtedly one of the best, if not the very best, of the books that have yet appeared in the English language on the subject of Ophthalmic Diseases.

It is illustrated by coloured pictures from the brush of Dr. Tatham Thompson of Cardiff,—very well executed, but perhaps some are a little unnatural in colouring. The pictures form, however, a considerable addition to the book, and most of them are very good.

The diseases are described rather from the clinical standpoint than from the pathological; but in ophthalmic work it is particularly difficult to dissociate them. Histological changes are easily seen, especially in diseases of the cornea and iris, in which structures the pathology of inflammation can be most perfectly studied.

The first half of the book, Section I., is concerned with the general diseases affecting the eye and its appendages. The consideration of the affections of the lacrymal passages is very full and satisfactory: the author gives good practical advice in this difficult subject. Diseases of the cornea are well and fully dealt with; and iritis, in its various forms and under its various complications, receives ample consideration. These facts are mentioned to show that the book is one well adapted for the needs of the family practitioner. But it should, at the same time, find a place in every ophthalmic surgeon's library. One of the best chapters is on foreign bodies in the eye. Amblyopia in its different degrees is well worked out. All parts of the clinical portion of the book show wide reading as well as large practical experience.

It is in Section II., however, which deals with the subject of Refraction, that the superiority of the book is most clearly seen. Most English text-books, which are excellent in other respects, cannot be recommended as containing a good description of this subject, which is on the whole the most important in the whole range of ophthalmology.

Berry's book can be most highly recommended in this connection. Its treatment of refraction is complete in itself;

and while it is sufficiently scientific and mathematical to satisfy those who possess a special knowledge on the subject, it is so clearly written and well expressed that it can be readily made practical use of by those whose knowledge of mathematics is very limited. Our author deals sensibly and practically with the clinical aspect of refractive errors and the use of lenses. His remarks on the etiology of Myopia are independent, and his remarks on prophylaxis and treatment indicate careful judgment.

In astigmatism our author regards retinoscopy as of great advantage; and it is just in this complicated error that the objective test is of such value. Berry admits the great difficulty of the direct method in astigmatism, but considers that it is excellent in spherical error, but difficult to apply to the amount of differentiation between the meridians. No one can deny the great merit of Javal's optometer; but a method by which the ophthalmoscope and ordinary lenses can be applied to the absolute estimation of astigmatism, and of spherical error at the same time, must be possessed of very great advantages.

The operations are clearly and fully described. It is always a difficult matter lucidly to describe a complicated operation, though easy to demonstrate it; but in this book description goes as far in making the various proceedings plain as is possible.

The operations more often performed in general practice, such as enucleation of the globe and slitting the canaliculus, are well given; so that in this respect, as well as in many others, this book will be of great use to general practitioners, especially in country practice. The operations generally performed only in ophthalmic practice also receive the fullest and most careful consideration.

Not only are the operations themselves well described, but their risks and the after-treatment necessary are all carefully given.

There is a very good account of the new methods of advancing the recti muscles in cases of strabismus; and the transplantation of mucous membrane from the mouth to the eye in symblepharon is described, though the latest proceeding, *i.e.* the transplantation of rabbit's conjunctiva, has not yet found a place in this work.

Mules' operation (evisceration with the insertion of a hollow globe) is mentioned. The author admits the very good result sometimes obtained, but recognises the liability to imperfect union of the conjunctiva over the artificial globe and its consequent tendency to drop out; but does not

allude to the risk of sympathetic mischief, which must not be forgotten.

The great subject of discussion at the present time, cataract operation without iridectomy, is entered upon, though very much space is of course not given to it. Berry does not recommend it in all cases; but when the cataract is not only mature, but also soft, especially if cocaine produces very marked dilatation of the pupil, he suggests that the extraction should be performed without iridectomy.

The difficulties and accidents in cataract-extraction are well given, and the operator is instructed how to deal with them in a thoroughly practical way.

We are advised not to perform iridectomy *for glaucoma* with cocaine, as the author does not consider it acts sufficiently as a local anæsthetic in these cases; but in our experience of its use in some of the less acute forms it has seemed to act well. In iridectomy for artificial pupil merely, Berry recommends the use of Tyrrell's hook rather than iridectomy forceps; but where we have to remove a large piece of iris in glaucoma (though the absolute need for this is questioned), he advises the use of the usual forceps.

Altogether, we may derive the greatest instruction in practical matters relating to the performance of ophthalmic operations from our perusal of this part of the book, and rest assured that we have here presented to us the more modern methods of operative procedure.

The Clinical Use of Prisms. By ERNEST E. MADDOX, M.B. Bristol: JOHN WRIGHT & Co. 1889.

This little book is likely to be of considerable use in assisting in the elucidation of a difficult subject.

It first deals with the physical effects of prisms upon light, and then describes how the change in direction of the rays of light, which the prism produces, can be applied to the diagnosis or treatment of diplopia, or muscular insufficiency.

The author has evidently given much attention to the subject; and his book, though simple, is complete and good.

There is an excellent chapter upon the decentering of lenses—a matter of more clinical importance, in our opinion, than prescribing prisms themselves; and the chapter on the analysis of the prismatic effect of spectacles deals with the centering of their lenses, and the value as prisms of convex and concave lenses of various strengths.

The author recommends the use of prisms in various

ways for purposes of diagnosis. Thus he recommends their use: (1) as a measure of the absolute minimum or maximum of convergence, or of its relative range; (2) to dissociate convergence and accommodation; (3) to decide the presence of binocular vision; (4) to disclose any tendency to vertical diplopia. They are also recommended to be worn by the patient as a method of treatment: (1) to relieve the strain of convergence; (2) to overcome curable diplopia by orthoptic exercises; (3) to correctan incurable diplopia; and (4) to relieve vertical diplopia.

We commend the book to the consideration of any who are engaged in ophthalmic work, and to those who are interested in the physical aspects of optics.

A Handbook of Therapeutics. By SIDNEY RINGER, M.D., F.R.S. Twelfth Edition. London: H. K. LEWIS. 1888.

Editions of Ringer's *Therapeutics* follow one another with such rapidity, that it has been said that the work might be looked upon as a medical periodical. This surely is high testimony of its value. But we must confess to having often found Dr. Ringer's book a disappointing one. Not that any complaint can be made about deficient quantity of information: on the contrary, it contains too much, for the enquirer gets perplexed with the multiplicity of uses to which each drug can be put. The whole book appears to us to lack system; it seems like a mass of notes taken at odd times put together without a proper attempt at selection and method. For instance, distressed at the failure of ordinary remedies to check excessive night-sweats in a case of phthisis, we turned to this edition of Ringer to see if anything unfamiliar had been recently found successful, and discovered in the Index that hyoscine "checks the sweating of phthisis," a statement that is repeated at p. 489; but on the same page it is said that "it does not apparently check perspiration." A contradiction like this does injustice to the general merits of the work. The name of the drug is spelled in three different ways.

Dr. Ringer's "Index to Diseases," if it did not contain a grave element of danger in being likely to induce perfunctory treatment, would be amusing. Whilst there is, of course, a large selection of drugs, not only for such a disease as "Confinement," but for many other common complaints, Dr. Ringer has but one suggestion to offer either for "Catch in the Breath" or for "Barrenness;" whilst "Crick in the

Neck" appearing in the list, isolated and without comment, seems to be altogether beyond the therapeutic resources of the present time, to which Dr. Ringer has so materially added by his original and laborious investigations.

Diabetes: its Cause and Permanent Cure. By EMIL SCHNÉE, M.D. Translated from the German by R. L. TAFEL, A.M., Ph.D. London: H. K. LEWIS. 1889.

This book is of a quality which, to the credit of Medicine be it said, is happily seldom met with. To make it the subject of a serious review is undesirable even if it were possible, for the work must be read to be believed; but as it should not be believed, neither therefore should it be read.

The author may be allowed one quotation by way of displaying his views and style (the italics are his, not ours):

"*Herein lies the great mystery, never before discovered by anyone, of the cause of 'diabetes,' and here, according to my conviction, hereditary lues on the part of one of the parents, grand-parents, or great-grand-parents of the patient has to be taken into consideration. A transmission of lues also through vaccination is not excluded.*"

Perhaps after all the book is a portentous joke, the point of which has not been perceived by the solemn Teutonic translator. The literary history and bibliography of Diabetes is fairly well done.

Transactions of the Royal Academy of Medicine in Ireland. Edited by W. THOMSON, M.A., F.R.C.S. Pp. 482. Dublin: FANNIN & CO. 1888.

The handsome volume before us is one of the best of this admirable series of *Transactions*, and is altogether a credit to everyone concerned in its production. The most striking feature of the papers is their thoroughness. They are evidently prepared for a cultured audience, and bear evidence that their authors have done their work up to a high level of criticism. At least half a dozen of the articles are worthy of permanent positions, as distinctly advancing knowledge; the majority illustrate principles, impress facts, or re-kindle thought.

Where so much is good we are loth to point out defects: the defects, as might be expected, are at the hands of the most frequent contributors, and they are chiefly marked in imperfect knowledge of the work of others and a too hasty

and superficial consideration of their own material. The reader will soon find out these articles for himself, and the information thus derived at first-hand will teach him to ignore articles by these men in future. The medical literary student, like every other literary student, soon finds out the men who write articles worth reading, and those who do not. It is curious to find in casual conversations what general agreement there is as to who are the medical literary bores: this knowledge cannot be acquired from reviews; it can only be got from the reading of several papers by these gentlemen. We can promise our readers an increased relative pleasure from a careful perusal of the many excellent papers in this volume, by a superficial study of the few feeble ones.

Osteo-arthritis. By JOHN KENT SPENDER, M.D. Lond. London: H. K. LEWIS. 1889.

This essay directs attention to the early symptoms and the early treatment of rheumatoid arthritis. From an analysis of more than a thousand cases of those who visit Bath for the sake of the "water cure," the author picks out certain symptoms as especially connoting osteo-arthritis; and of these he directs especial attention to "increased velocity and tension of the heart's action." He states that "a steady pulse of much tension, varying from 90 to 110, is tolerably common. The pulse quickens synchronously with the earliest objective signs of osteo-arthritis." We are sorry that no sphygmographic tracings are given, and that the statement with regard to high tension is therefore not demonstrated. The point is one of much interest, inasmuch as a quick pulse is commonly one of low tension. We shall hope for further evidence on this point: such a persistent increase of tension as is described would be likely to lead to cardiac hypertrophy and valvular defect, which we know to be the exception in this disease.

Another symptom of much value in diagnosis is a "disturbance in the chromatogenous function of the skin. Concentrated as patches more or less large, the pigmentation assumes many hues, and affects many parts of the body. Across the forehead it often runs as a light bronze smear, or like a patch of chloasma. . . . Without a question being put, people often voluntarily say that the yellowness and the spots began at the same time as the rheumatoidal symptoms." The author describes the various forms of pigmentation, and

he appears to rely on these for diagnosis to an extent which is not usually appreciated.

Numerous illustrations of vaso-motorial and neural symptoms conclude the chapter on diagnosis.

The remaining chapter is a powerful appeal for early treatment, in opposition to the usual method of doing little. He pleads "that the proper treatment of osteo-arthritis consists in seizing the right threads at the very beginning, and in holding them with a fighting attitude to the very end." The whole chapter is full of practical experience, and holds out much hope to the patient for whom little expectation of benefit from treatment is commonly entertained. We will not spoil it by abstracting any portion: it should be read as its author gives it, and if acted npon seems likely to give satisfaction both to doctor and patient.

The Classification, Correct Dietary, and Treatment of Diseases of the Skin, as practised at the Belfast Hospital for the Skin. By HENRY S. PURDON, M.D. London: BAILLIÈRÈ (*sic*), TINDALL AND COX. 1889.

For some time we were in doubt whether this work should be considered a serious book, or whether it could serve any useful purpose. Of the 32 pages of which it consists, 21 are arranged in double columns—one of which gives the cause and description of the disease, and the other its treatment; but about half the whole space is bare.

It must be said, however, that the suggestions for treatment, which offer a pleasing variety of applications, are on the whole sensible and devoid of "fads," if we except a manifest leaning towards vegetarianism. The writer might have given us a little more detail about the preparation of his "Pomades," and the specification of particular firms should have been avoided. Excellent "ærated" (*sic*) waters can be got without going to "the eminent firm of" Blank and Dash, and desirable preparations of cocoa and of white soup without necessarily patronising the establishments mentioned.

The book is closed with a drawing of the unpretentious-looking building in which the writer is gaining his experience. This, in days when we are anxious to know everything about the personal environment of a writer, has its interest; but it is difficult to see how it is to help the general reader striving to cure skin-diseases. Altogether, this is a style of book we do not like.

The Directory of Second-hand Booksellers and List of Public Libraries, British and Foreign. Rochdale: JAMES CLEGG. 1888.

It was a capital idea to supply the book-hunter with a work on the lines of this one, and we shall doubtless in further issues see the book much improved. For instance, the information as to the special kinds of literature to be found with certain booksellers needs much amplification; and it would be a great comfort, upon going into a town for the first time, to know how access could be obtained to many of the libraries mentioned at pp. 59—72. It is strange to see a list of "Bibliographical Works of Reference" which contains no mention of Herbert's edition of Ames's *Typographical Antiquities*, of the British Museum *Catalogue of Early Printed Books*, or of Mr. Arber's *Transcript of the Stationers' Registers*. On the other hand, the list of "Journals of the Book Trades" is widely comprehensive; and some of the higher class literary papers must be astonished at finding themselves among much excellent but merely commercial company. It would be interesting and certainly appropriate to have in future editions a chapter on the history of bookselling.

We hope it is intended to make this publication an annual one.

Specialities and Recently Introduced Remedies. Manchester: JAMES WOOLLEY, SONS & CO. 1889.

We have been pleased at receiving this tastefully got-up list, which should be kept well within reach on the consulting-room table, and which, doubtless, Messrs. Woolley will readily send to any practitioner asking for it.

THE INTERNATIONAL MEDICAL CONGRESS.

We, the undersigned, do hereby give notice, that according to the resolution passed at the Washington meeting, Sept. 9th 1887, the

10th International Medical Congress

will be held in **Berlin.** —

The Congress will be opened on the 4th and closed on the 9th day of **August 1890.**

Detailed information as to the order of proceedings will be issued after the meeting of the delegates of the German Medical Faculties and Medical Societies at Heidelberg on the 17th of September in the current year.

Meanwhile, we should feel sincerely obliged, if you would kindly make this communication known among your medical circles and add in the same time our cordial invitation to the Congress.

von Bergmann. Virchow. Waldeyer.

Notes on Preparations for the Sick.

La Bourboule Water.—INGRAM & ROYLE, London.

The mineral waters of Auvergne have long been celebrated, and the number of visitors who annually go to Vichy, Royat, Le Mont Dore, and La Bourboule is steadily increasing. A visit to the health-resorts of the Puy-de-Dôme, and residence at an altitude of three or four thousand feet amongst the mountains, are necessary adjuncts to a due utilisation of the mineral waters at their source. Doubtless this is the most satisfactory method; no matter how valuable the water by itself may be, the adjuncts provided for invalids at the source are an important element in "the cure." It has sometimes been questioned whether the water itself might not be dispensed with, and the cure effected by means of the adjuncts only; but in the case of the waters of La Bourboule no such criticism will bear investigation. The composition of the water at once indicates its applicability to the treatment of a large proportion of diseases of the skin, and various forms of scrofulous disease: the fact that it contains so large a proportion of arseniate of soda as nearly two grains per gallon puts adverse criticism aside, and indicates its utility in all those diseases where arsenic is in steadily increasing use and has a well-established reputation. La Bourboule water contains the largest proportion of arsenic known to exist in any natural water, and it is combined with various salines such as exist in normal blood. The combination is found by experience to be superior to any pharmaceutical preparation: in this form the arsenic appears to be more efficacious in smaller dose, and less likely to irritate the digestive organs. The dose varies from half a tumblerful to two or three in the day; it may be taken at meal-times, cold or warm, either by itself, or mixed with wine or milk. The duration of the course at La Bourboule is twenty-one days; but it not infrequently happens that the system becomes saturated in a shorter time than this.

Elect Extract of Cocoa.—H. J. ROWNTREE & Co., York.

"The 'Elect' Cocoa is characterised by extraordinary strength and by a refreshing and delightful taste and aroma."

Its characteristics are purity, strength, and flavour. It is

highly spoken of by those who have examined its chemistry, and we doubt not is all that it pledges itself to be.

There are so many good preparations of cocoa in the market, that it would be difficult to say which is the best. Some say one, some say the other: those who like cocoa should at least try this one.

Milk-Preparations.—The Swiss Milk Co., St. Gall, Switzerland.

We have received some of the preparations of this Company.

The **Pure Compressed Milk Extract** is a milk in powder, and is prepared from fresh cow's milk and guaranteed not to contain any foreign or preservative matter. It is composed solely of dried-up milk-products, and being free from water possesses the advantages of little bulk and light weight. It dissolves readily in hot water, and yields a product equal to the best cow's milk.

A **Sweetened Extract of Milk** is made for those who prefer a mixture of the milk-powder with refined cane-sugar.

These powders can be kept indefinitely, even when exposed to the air, without undergoing change, and are therefore very convenient for travelling and exportation.

The same firm also sends us samples of **Dr. Otto Krueger's Chocolate Milk** in powder, which is prepared also with the addition of **Legumin** or of **Malto-legumin**. It is also issued in the form of tablets.

All these preparations have the milk-powder as their basis. The combination with chocolate and with malto-legumin must have a high nutritive value; they are excellent articles of food both in health and disease, are small in bulk, and easily prepared for use.

Lanoline Cream.—T. Buxton, Bristol.

The advantages of lanoline as a basis for many ointments are now well known: its stickiness is the only disadvantage, and this can easily be removed by admixture with vaseline or vaseline oil. Some such combination as this, with a considerable percentage of water, constitutes the basis of many proprietary articles now much vaunted. The lanoline cream sent to us by Mr. Buxton forms an excellent ointment, and may be used as the basis for a great variety of combinations.

PERISCOPE.

MEDICINE.

Mode of Infection in Diphtheria.—Dr. Sevestre believes that though diphtheria can be transmitted by the atmosphere, yet contagion is most frequently carried from the infected to the healthy person by means of some intermediate object. He gives two instances in which this mode of infection clearly appeared to have taken place:

In the first, a patient suffering from typhoid fever was visited by his sister, a nurse in the diphtheria wards in the Hospital Trousseau; she left with him a shawl that she was in the habit of wearing in the wards, and some days afterwards he was taken with diphtheria.

The second instance was that of a young girl, whose mother had died of diphtheria two years before: there was no possibility of her having been in contact with a case of diphtheria since then, and she lived under good sanitary conditions. Various things that the mother had used during her last illness were locked up in a chest. Some days before she herself contracted diphtheria, the child had been pulling over these things, which had been undisturbed for two years, with her sister. In this case there seemed to be no possible source of infection except through these articles, that had therefore retained the virus unimpaired for two years.

Dr. Sevestre accordingly strongly insists on the necessity of thoroughly disinfecting or destroying everything used by a diphtheritic patient.—*Le Progrès médical*, March 2nd, 1889.

J. M. C.

Equino-telluric origin of Tetanus.—M. Verneuil at the French Academy of Medicine embodied the results of his observations on this subject in the following conclusions:

(1) Tetanus is transmitted not only from one animal to another of the same or of different species, but also from man to man, from men to animals and *vice versâ*.

(2) Contagion from a horse suffering from tetanus to a man with an open wound is brought about directly or indirectly; most frequently in the latter way.

(3) By means of intermediate agents. These comprise all objects, of whatever kind which, from brief or prolonged con-

tact with a horse affected with tetanus, receive the virus without destroying it.

(4) Living beings may carry the infection without being themselves affected by it; but the presence of an open wound at once renders them liable to auto-inoculation.

(5) A man with an open wound may be infected by any object that carries the virus; but observation and experiment show that the most dangerous source of contagion is derived from the horse and his surroundings; next dangerous is contact with cultivated soil, which only certainly possesses the power of causing tetanus in man when it has been contaminated by a horse affected with the disease.

(6) Statistics show that, as in the case of glanders, those who have the care of horses are the chief sufferers from tetanus: the topographical distribution of equine and human tetanus coincide. Equine is more common than human tetanus in our climate. When equine tetanus diminishes and tends to disappear, human does so in corresponding proportion. The prophylaxis of tetanus lies therefore in veterinary hygiene.—*Le Progrès médical*, April 6th, 1889.

J. M. C.

Obesity.—Kisch, in a recent monograph on this subject, gives an account of an analysis of 10,000 cases. In 100 cases which were examined as to the state of the hæmoglobin, it was increased in 79 and decreased in 21. The mode of the occurrence of fatty infiltration of the heart was studied experimentally on geese and seen to result in the later stages in a partial degeneration of the muscular fibres from pressure by fatty accumulation. This accounts for the disturbance of function, pressure on the ganglion-cells lying in the sulci probably causing it in the earlier phases. Sphygmographic tracings show that out of 700 cases only 20 were normal—2.8 per cent.: in 43.5 per cent. there was a slow pulse of different degrees, while a dicrotic pulse was seen in 32.2 per cent. There was increased tension, through arterio-sclerosis, in 16.1 per cent., and irregularity in 8 per cent. He considers the slow pulse an important symptom of fatty infiltrated heart. He found that often where there was a considerable slowing of the pulse to the extent of 50—30 beats, where there was a great amount of distress with insufficient objective condition to account for it, sudden death often occurred. In the liver he held that there is a retention of bile and formation of gallstones; in contradistinction to Murchison, who denied the tendency to jaundice. In 38 autopsies, gallstones were found in three. Albuminuria occurred frequently—in moderate amount and transitory, where

no appearances pointed to affection of the epicardial fat; in greater amount and lasting, where due to passive congestion and slight parenchymatous nephritis. Transitory glycosuria, passing in the course of years into diabetes mellitus, is said to occur often. Menstrual anomalies are seen frequently. In 215 women, 48 were sterile—21 per cent.—Review in *Berliner klinische Wochenschrift*, No. 36, 1888. D. R. P.

The Functions of the Stomach in Phthisis.—At the recent Medical Congress held at Wiesbaden, Professor Immermann of Basel discussed the question whether the anorexia observed in cases of phthisis was merely a form of digestive hyperæsthesia or due to an actual disturbance of the gastric function. To settle this point, experiments were instituted with the test-meal of Leube and Riegel. Cases were chosen where the appetite was still good, as well as cases where there was disinclination for food; and also patients where the pulmonary affection was very advanced, especially those where high fever was present. In all cases the test-meal was digested in six hours, even in those where the appetite failed, where dyspeptic feelings were present, the strength poor and the fever very high. In one case, even five days before death, the meal was well digested. The probability therefore is that these gastric symptoms have a subjective or nervous character. The degree of acidity present one hour after the ingestion of a meal was the same as in the healthy condition, while the amount of pepsin showed its normal proportion. Immermann concludes from this that we ought to be more confident in the administration of food to phthisical patients than we usually are.—*Berliner klinische Wochenschrift*, No. 18, 1889. D. R. P.

THERAPEUTICS.

Treatment of Tænia.—M. Descroizilles prefers the ethereal extract of male fern. For six weeks before the remedy is administered the patient abstains from sugar, pastry, &c., taking a gentle purgative every fifteen days; for the last four days milk-diet only is allowed. At night, and on the following morning at 5 a.m., an enema is given, then the male fern is taken at 8 a.m. The child stays in bed to prevent vomiting, and two hours after takes a dose of castor oil. If an evacuation of the bowels does not shortly follow, an enema is given. If a cure does not result, one should wait three months before making a second attempt.

M. Béranger-Ferand allows the patient only bread and milk for his supper the evening before taking the vermifuge:

at 6 a.m. a senna draught is taken, followed by the vermifuge at 6.30, and a second aperient dose one hour later.

He has tried cucurbita maxima, kamala, and pelletierine. The two former give rise to nausea, sometimes vomiting, colicky pains, headache, and are not effectual. Kamala causes the expulsion of live fragments of the worm, but does not cure, as the head remains. Pelletierine (dose for adult 3—6 grains) gave the best results; it was successful in 72 per cent. of cases. Dujardin-Beaumetz says that pelletierine stupefies the tapeworm for a very short time, but does not expel it; a quickly-acting purgative should be given about twenty minutes after it. He adds a caution against the use of pelletierine in the case of young children. Tannin, when given with pelletierine, renders it insoluble, so that it is not absorbed by the stomach. The only contra-indication against pelletierine for adults is that it gives rise to vomiting, which may perhaps be avoided by previously giving cocaine or antipyrin. —*L'Union médicale*, April 30th, 1889. J. M. C.

Treatment of Ileus.—In the discussion upon this subject at the Wiesbaden Congress, Curschmann, who opened the question, stated that out of 105 cases of serious intestinal obstruction, 37, or more than a third, recovered spontaneously. He looks upon the difference of opinion in the matter of treatment between physicians and surgeons as due to the fact that the latter generally see cases where the obstruction is complete, and the patient is in a serious condition. Fürbringer declared that one-third of the cases admitted into the Friedrichhain Hospital recovered without operation. It might be said from the evidence of statistics that the result of internal treatment is not bad enough, and that of surgical treatment not sufficiently good, to necessitate calling in the aid of the surgeon. Excellent results are obtained from opium. Puncture of the intestine is not dangerous, and it has led in many cases to improvement. The injection of air into the intestine has good effect, but in some cases disagreeable consequences follow. Von Ziemssen supported this latter treatment, and stated that during it one can often by auscultation determine the seat of obstruction. Fæcal vomiting may occur from a communication between the stomach and colon, and this can be recognised by pouring water into the stomach and injecting air into the rectum. Ziemssen declared from personal experience that medicines by the mouth had no effect on this symptom, and recommends morphia hypodermically or by rectum. Nothnagel contested the statement that formed fæces were ever thrown

up. He had never seen it, and did not believe it possible. Sometimes formed masses are found in the vomit, which consist of coagulated milk coloured with bile: at the autopsy one never finds formed fæces above the point of obstruction. Leube answered the question, "When may and when must one operate?" by saying that when internal remedies are exhausted, and the pulse still good, we might do so, and it ought certainly to be done when the pulse becomes bad. Rosenbach advocated the intestinal puncture, being supported in this by Fraentzel; but Hoffman of Leipzig held that, even with great care and a very fine trocar, fæcal matter may escape into the abdomen. All the speakers spoke with approval of the washing-out of the stomach recommended by Kussmaul; Mosler even declaring that in many cases it led to cure, in others it relieved, and by lessening the abdominal pressure made palpation much easier for the practitioner, and increased the chances of a correct diagnosis.—*Therapeutische Monatshefte*, Heft 5, 1889, and *Berliner klinische Wochenschrift*, No. 17, 1889. D. R. P.

Action of Sulphonal.—This drug, which was introduced by Kast as a trustworthy sleep-producing agent, has now been on its trial for a year; and although in certain cases it has been followed by striking effects, the result of experience seems to indicate that we have not in it a safe and certain hypnotic free from unpleasant after-consequences. The prostration, bodily and mental, which sometimes follows its use, is often very marked, and is well illustrated by the following cases recorded by Rehm:

1. A lady, aged 48, suffering from muscular rheumatism in the neck, was treated by friction and massage in vain; but was much relieved by baths. The sleeplessness was combated by 22-gr. doses of sulphonal, which she took on six consecutive evenings. On the first three occasions it acted agreeably; but after further doses constipation, loss of appetite, restlessness, excitement and anxiety, with illusions and hallucinations, set in. She was in a condition of great exhaustion, very pale, with speech scarcely audible. There was great hyperæsthesia of the senses, double vision, and muscular twitching. She was unable to sit up, the movements of the hands were ataxic, and she could not raise her eyelids. After the discontinuance of sulphonal she recovered slowly; the power of locomotion was much affected even four weeks after, and it was some time before she was quite well again.

2. A gentleman, 51 years of age, was given for sleepless-

ness 30 grs. sulphonal as a narcotic. All night he felt as the bed were swinging. During the whole of the following day he lay in a very stupid state, had no appetite, and felt ill. He vomited several times, and felt very giddy. Some days after the drug was tried again, but the same effects followed.

3. A nervous lady, 32 years old, for years moderately addicted to the use of morphia, took 30 grs. for sleeplessness. One dose was taken, after which she lay for four days feeling tired, sleepy, stupid, and giddy; it had no influence on digestion.

A curious contrast to these cases is afforded by an instance which occurred in Riedel's chemical manufactory, where a workman, "in order to get a right good sleep," took three good tablespoonfuls of sulphonal. He remained for half-an-hour in a beerhouse, and went home only when he felt overcome by weariness. He slept from Thursday evening to Tuesday morning, and then, after he was awakened, went to sleep again until Wednesday afternoon. He felt somewhat giddy; but although he had taken 450 grs. of the drug, he felt no other unpleasant after-effects.—*Berliner klinische Wochenschrift*, No. 16, 1889. D. R. P.

Cure of Exophthalmic Goitre by treatment of a Nasal affection.—Hopmann contributes a third case to this mode of treatment. Early in 1888 Professor Fränkel brought forward an instance where an incomplete case—palpitation and goitre without exophthalmos—was greatly improved by the treatment of a nasal stenosis by the Galvano-cautery. The second case was communicated in 1886 by Hack, where treatment of the hypertrophied inferior turbinated bone by the Galvano-cautery led to the cure of the disease. Hopmann's case was a female, aged 40, who complained of throat-trouble, constant hawking with cough. There was great weakness in the legs, palpitation and pain in the eyes, especially the right. There was exophthalmos in the right eye, with Graefe's symptoms. Here there was no goitre; but Bamberger points out that the disease may occur without one or even two, of the cardinal symptoms. The rhinitis and pharyngitis were treated: two or three small polypi, as well as some crusts, were removed from the nose, with the result that the symptoms soon completely disappeared.—*Berliner klinische Wochenschrift*, No. 42, 1888. D. R. P.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

The Law of Compensation.—"It is reported," says the *Evening Wisconsin* "that a Georgia farmer made $100 off an acre planted in watermelons; and a physician in the neighbourhood made $200 off the same acre."—*New York Medical Journal.*

A Novel Position.—A subscriber to this *Journal*, looking through its advertisement-pages, and seeing the statement that some manufacturers were prepared to supply "Antipyrin tabloids to the medical profession in bottles," said that he had often heard of the medical profession in their cups, but never in bottles.

Good all Round.—"You 'll be glad to hear, John," said a farmer to his shepherd one day, "that the University of St. Andrew's has made our minister a doctor." "I am naeways surprised at that," said the shepherd. "Mair than twenty years syne he cured my wife o' a colic. I think he should hae been made a doctor lang syne."

Vaccination.—When Jenner began his vaccinations, he, of course, met with much opposition. Caricature and ridicule were freely employed. The following lines, written by a doctor of the time, are very little more unreasonable than many of the arguments used to-day by the opponents of the procedure:

"O Jenner! thy book, nightly phantasies rousing,
Full oft makes me quake for my heart's dearest treasure;
For fancy, in dreams, oft presents them all browsing
On commons, just like little Nebuchadnezzar.
There, nibbling at thistle, stand Jem, Joe, and Mary.
On their foreheads, oh, horrible! crumpled horns bud.
There Tom with his tail, and poor William all hairy,
Reclined in a corner, are chewing the cud!"

Is the Taste in the Mouth?—*The Medical Age* says: "Is it not a little singular that physicians will persist in speaking of the taste in the mouth? A patient was asked the other day if she had a bitter taste in her mouth in the morning. She naïvely replied that when she had a bitter taste it was always in her mouth. That is the only end of the alimentary tract that we know of in which the sense of taste resides." Whereupon *The Medical Record* adds: "If our contemporary will be so particular, we may perhaps venture to remind him that if one comes down to a minute analysis, the taste is not in the mouth in reality at all, but is in the gray matter of the uncinate gyrus. The idea that the taste is in the mouth is simply due to the eccentric projection of the secretion according to the known laws of physio-psychology. We trust that he will make proper explanations to the lady."

Ideal for a Medical Society.—In his interesting Presidential address before the Medical Association of Central New York, on May 21st, Dr. William C. Bailey, of Albion, N. Y., presented the following picture of what a Medical Society should be: "A medical society, to serve its highest purpose, ought to be the standard-bearer of the profession; the magnet that will attract the physician from those secluded caverns of habit in which he, above all others, easily obscures himself—a lever that will lift

the wheels of his professional chariot out of the ruts of established routine. It should be the physician's Mecca, whither he may journey, a pilgrim consecrating himself anew in his faith. It should be his Olympia, where he may seek social intercourse and friendship, a recreation for his wearied mind and body. It should be to him an Academia, that will broaden his views of life, establish or strengthen religious principles, stimulate and elevate his moral nature. It should be his Athens, whither he may go for increased wisdom, learning in discussion, as did the philosophers of old, obtaining here a knowledge of all progress in operation, treatment, and literature. Finally, it may be his Delphi, the inspiration of his imagination; for in medicine, as in all science, it is often the prophetic finger of Fancy that points the way to the undiscovered. The world is made up of individuals. In the individual we find a unification of various qualities; and his success is assured who correlates—or, if I am permitted, educates—those qualities into such perfect harmony that they attain the highest good. As each component part has its duties, the proper performance of which is essential if the highest degree of perfection possible be desired, so in organised society the individual cannot wholly escape certain obligations that rest upon him, even though, like Byron's Manfred, he exile himself to the solitude of the Alps."—*The Medical and Surgical Reporter.*

The Black Death.—The whole period during which the Black Plague raged with destructive violence in Europe was, with the exception of Russia, from the year 1347 to 1350. Most of the great cities suffered incredible losses; above all, Yarmouth, in which 7,052 died, Bristol, Oxford, Norwich, Leicester, York, and London, where, in one burial-ground alone, there were interred upwards of 50,000 corpses, arranged in layers in large pits. Morals were deteriorated everywhere, and the service of God was, in a great measure, laid aside; for, in many places, the churches were deserted, being bereft of their priests. The instruction of the people was impeded; covetousness became general; and when tranquillity was restored, the great increase of lawyers was astonishing, to whom the endless disputes regarding inheritances offered a rich harvest. The sittings of Parliament, of the King's Bench, and of most of the other courts, were suspended as long as the malady raged. Ireland was much less heavily visited than England. The disease seems to have scarcely reached the mountainous districts of that kingdom; and Scotland, too, would perhaps have remained free, had not the Scots availed themselves of the discomfiture of the English, to make an irruption into their territory, which terminated in the destruction of their army, by the plague and by the sword, and the extension of the pestilence, through those who escaped, over the whole country. In Russia the Black Plague did not break out until 1351, after it had already passed through the south and north of Europe. In this country also the mortality was extraordinarily great; and the same scenes of affliction and despair were exhibited, as had occurred in those nations which had already passed the ordeal. The same mode of burial—the same horrible certainty of death—the same torpor and depression of spirits. The wealthy abandoned their treasures, and gave their villages and estates to the churches and monasteries; this being, according to the notions of the age, the surest way of securing the favour of heaven and the forgiveness of past sins. In Russia, too, the voice of nature was silenced by fear and horror. In the hour of danger, fathers and mothers deserted their children, and children their parents. Of all the estimates of the number of lives lost in Europe, the most probable is, that altogether a fourth part of the inhabitants were carried off. It may be assumed without exaggeration that Europe lost during the Black Death 25,000,000 of inhabitants.—Hecker's *Epidemics of the Middle Ages.*